



DEPARTMENT OF THE NAVY

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BEAUFORT, SOUTH CAROLINA 29902-6148

IN REPLY REFER TO:

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29 Sep 2016

From: Commanding Officer, Naval Hospital, Beaufort
To: Director, Marine Corps Community Services, Marine Corps Air Station, Beaufort

Subj: PERIODIC INDUSTRIAL HYGIENE SURVEY FOR MARINE CORPS COMMUNITY SERVICES CATEGORY 3 and 2 SHOPS, MCAS BEAUFORT, SC

Ref: (a) OPNAVINST 5100.23G
(b) MCO 5100.8F

Encl: (1) Periodic Industrial Hygiene Survey

1. Per references (a) and (b), a periodic Industrial Hygiene Survey was completed on 02 through 15 August, and 23 September 2016. The purpose of this survey was to identify and evaluate potential health hazards in the work place and recommend appropriate controls to ensure the health and safety of personnel.
2. Enclosure (1) contains the Industrial Hygiene Survey report which includes an executive summary, a review of Navy Occupational Safety and Health programs, workplace evaluations, recommended medical surveillance, an evaluation of reproductive hazards and proposed workplace monitoring plan.
3. Questions concerning this report may be directed to Esmeraldo Ranches at 228-6198 or via email at esmeraldo.l.ranches@med.civ@mail.mil.

A handwritten signature in cursive script that reads "Angela Dean".

A. M. W. Dean
By direction

Copy to:
MCSS Safety Officer
Safety and Standardization, MCAS Beaufort, SC
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PERIODIC INDUSTRIAL HYGIENE SURVEY

**MARINE CORPS COMMUNITY SERVICES (MCCS)
MARINE CORPS AIR STATION (MCAS) BEAUFORT, SC**

AUGUST 2016

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Enclosure (1)

**PERIODIC INDUSTRIAL HYGIENE SURVEY
MARINE CORPS COMMUNITY SERVICES (MCCS)
MCAS BEAUFORT SC and MCRD PARRIS ISLAND SC
AUGUST 2016**

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Executive Summary

A periodic industrial hygiene (IH) survey of Marine Corps Community Services (MCCS) was completed on during the period 02 August - 16 August 2016 and 23 September to identify significant changes in health hazards present, assess actual health risk, and recommend controls where needed. Eight of the shops were baseline surveys for MCCS restaurants. No formal response is needed. MCCS will receive an Industrial Hygiene (IH) Survey on a two-year or four-year basis, depending on established shop priority code. However, any significant change in the type of operations performed, workplace setting, or change in the kind or amount of chemicals used will result in a need for a re-evaluation of the affected area. Contact Industrial Hygiene for a re-evaluation, as required.

Engineering designs; standard operating procedures (SOPs); purchasing transactions; and service contracts relevant to IH or occupational health must be reviewed by IH prior to construction or issuance of SOPs, purchases or contracts. Failure to do so may result in unnecessary operational costs and inability to recognized health and safety risks in the workplace. The following is a summary of major findings and recommendations:

FINDING: MCCS has committed to providing OSHA 10-hour training to non-supervisory personnel and OSHA 30-hour training to all supervisors. This training coupled with the recent OSHA Voluntary Protection Programs (VPP) visit to MCAS Beaufort has greatly increased safety and health awareness on this installation.

RECOMMENDATION: Continue with this investment in safety.

FINDING: The following significant updates are noted from the last periodic survey:

- MCAS Laurel Bay Child Development Center closed in 2014
- MCAS Laurel Bay MCX has closed for renovation, no reopen date has been set

RECOMMENDATION: Please notify Industrial Hygiene prior to the MCX re-opening so a new baseline survey can be conducted.

FINDING: Baseline industrial hygiene (IH) surveys were conducted for: MCAS Food Court, MCAS O'Club, MCRD Food Court, MCRD Sand Trap, MCRD Log Cabin, MCRD Traditions, MCRD Lyceum, and MCRD Java Café. Across the board there were findings related to having a current Safety Data Sheet (SDS) inventory, a complete file of SDSs, and employee awareness of what personal protective equipment (PPE) should be worn during cleaning processes. Specific findings are provided in the Individual Workcenter Hazard Assessments (IWHAs).

RECOMMENDATIONS: Use this as a training opportunity for supervisors to get their hazard communication (HAZCOM) programs up to date and to educate employees on the safe use of chemicals and the use of proper PPE.

REFERENCES: NAVMC DIR 5100.8, Marine Corps Safety and Health (OSH) Program Manual

HAZARD MATERIALS/HAZARD COMMUNICATION

FINDING: The product, "Shelia Shine", which contains 10-30% perchloroethylene, was observed stored in the flammable cabinet, but is no longer being used at the MCRD Food Court and the Java Cafe. The MCRD Fleet Maintenance shop also has it stored in a flammable cabinet.

RECOMMENDATION: Turn in product for disposal following local procedures and find a safer substitute.

FINDING: Some shops, in addition to the eating establishments, had incomplete hazardous material inventories and were missing some SDSs. Occasional unlabeled working containers of chemicals were observed during the survey. The IWHAs identify findings by shop.

RECOMMENDATIONS: Use this as a training opportunity for supervisors to get their hazard communication (HAZCOM) programs up to date and to educate employees on the safe use of chemicals and the use of proper PPE.

PERSONAL PROTECTIVE EQUIPMENT

FINDING: Personnel are voluntarily using dust masks (filtering face piece devices) without apparent training for the following locations: MCAS Food Court, MCRD Fleet Maintenance, MCRD Facility Maintenance, MCRD Skills Education Center, MCRD Engraving Shop, MCRD Marine Corps Exchange, and the MCRD Java Cafe.

RECOMMENDATION: Provide training to meet the requirements of 29 CFR 1910.134, Appendix D, Mandatory Information for Employees Using Respirators When Not Required Under the Standard.

FINDING: Several MCRD shops (Facility Maintenance, Fleet Maintenance, Skills Education Center and Grounds Maintenance) are not being provided gloves for use during shop operations.

RECOMMENDATION: Provide appropriate gloves as required by NAVMC DIR 5100.8.

SIGHT CONSERVATION

FINDINGS:

1. The eyewash at the MCRD Food Court was blocked by boxes and mop carts
2. The eyewash at the Sand Trap was not located within 10 second travel and personnel did not have a clear line of path to the eyewash.
3. The eyewash at the MCRD Exchange was not located where personnel use caustic cleaners.
4. The eyewash at the MCRD Skills Education Shop had broken caps.
5. The following locations did not have eyewashes: MCAS Food Court, the O'Club, Lyceum, and the Java Café.
6. The eyewash at the MCRD Golf Course was inoperable.
7. The eyewash at Traditions was not in proximity to the kitchen.

RECOMMENDATION: Ensure eyewashes are properly located, operable, and accessible, per 29 CFR 1910. 151(c) and ANSI/ISEA Z358.1-2014.

HEARING CONSERVATION

FINDING: The MCRD Skills Education Center, MCRD Grounds Maintenance, and MCRD Golf Course (Grounds Maintenance) were listed in the last periodic survey as requiring employees to be in the a Hearing Conservation Program. Employees indicated they no longer receive training or audiograms.

RECOMMENDATION: Verify medical surveillance status for these shops.

A summary of exposure monitoring requirements for MCCS is provided on page 105. Industrial Hygiene requests MCCS cooperation in getting the monitoring scheduled and conducted.

A summary of medical surveillance recommendations for MCCS is provided on page 107. There have been a few updates based on exposure monitoring, so please ensure supervisors get a copy of their shop IHWA, as well as this summary page.

At the end of this report is a Customer Satisfaction Survey through which Industrial Hygiene guides our report process through customer feedback or provide IH service feedback by accessing the online address @ http://ice.disa.mil/index.cfm?fa=card&sp=124393&s=350&dep=*DoD&sc=11

MARINE CORPS COMMUNITY SERVICES
IH Program Review Report Guide

Ref: (a) OPNAVINST 5100.23G Series, Navy Safety & Occupational Health (SOH) Program Manual
(b) NAVMC DIR 5100.8, Marine Corps Occupational Safety and Health Program Manual

1. **Introduction.** Per references (a) and (b), a periodic IH survey was conducted during the period 2-15 August and on 23 September 2016. The survey was conducted to update information reported in previous industrial hygiene (IH) survey reports, and consisted of a site visit, walk-through evaluations of all work areas, a review of the hazardous material inventory, and employee interviews as appropriate to assist in the industrial hygiene assessment.

2. **Report Purpose and Use.** It is recommended that this report is read by all levels of MCCS in order to improve the Occupational Safety and Health Program. Questions regarding evaluations, findings or recommendations should be addressed to the servicing Industrial Hygienist for this command.

3. **Re-evaluation Schedule and Changes in the Workplace.** Please retain this report on file. Work centers will be re-evaluated every two or four years as noted in the work center assessments. However, any significant changes in operations performed, workplace configuration, or type and amount of chemicals used will result in a need for a re-evaluation. Notify IH of such changes, per reference (a).

4. **Individual Workcenter Hazard Assessments (IWHAs).** A copy of the shop's IWHA should be provided to each supervisor per reference (a). Work center assessments provide information recorded during the IH survey walk through and are based on observation and interview with work center employees. These forms are excellent tools for work center supervisors to identify and enforce the use of personal protective equipment (PPE) and to ensure that noise hazardous equipment and areas are posted. These forms also can be used as a guide for required hazardous material training. Emphasis should be placed on reproductive and carcinogenic hazards which are clearly identified in these forms. Please review this information periodically with all work center personnel and contact IH for an immediate reevaluation if changes are noted in the operations, workplace configuration, or materials used in each process identified. Contact IH in advance of new operations so that a thorough evaluation can be made to determine if any new engineering, PPE or administrative controls should be assigned.

5. **Safety and Occupational Health (SOH) Program Assessment.** The following table provides a summary of SOH program evaluations as identified in reference (a) for this command:

**SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANAGEMENT ASSESSMENT
MARINE CORPS COMMUNITY SERVICES
AUGUST 2016**

New or Significantly Modified Work Center Operations/Processes?

- No significant changes in operations/processes were identified this survey period.
- Baseline Industrial Hygiene Survey and no changes would be identified during this survey period.
- New or significantly modified work center operations/processes were found and documented during this survey period.
- Work center personnel have the potential to be loaned to other commands and have been directed to the appropriate command survey.

Comments: The following new or significantly modified work center operations/processes were identified this survey period:

Baselines for the following shops were conducted: MCAS Food Court, MCAS O'Club, MCRD Food Court, MCRD Log Cabin, MCRD Lyceum, MCRD Traditions, MCRD Java Café, and MCRD Sand Trap.

The MCCS Golf Course uses certain bacteria to prevent and control foliage diseases in conjunction with the routine application of biocide and fungicide. The bacteria is non-pathogenic to humans. This is one of the methods applied in the integrated pest management and disease management program.

For purposes of this survey, "significant changes" are defined as workplace modifications that could require a change in recommended medical surveillance enrollment, personal protective equipment or exposure control measures (ventilation, etc).

Medical Surveillance Program (MSP)

- No MSP enrollment is required for current work center operations.
- MSP has been recommended by IH.
- Occupational medical exams (OME)/ job specialty exams are required by task/trade.
- No MSP enrollment recommendations/changes from the previous IH Survey.

Comments: If applicable, MSP and OME are annotated in the Medical Surveillance Summary and on work center Individual Hazard Assessments enclosed at the back of this report.

The fungicide, fertilizer, and herbicide spraying is recommended to be monitored during the treatment of golf greens to determine pest controller's exposure level to organophosphates,, fungicide and herbicide. The exposure characterization will determine if personnel are recommended for enrollment in the appropriate medical surveillance program. It is highly recommended that personnel receive a baseline physical examination prior to application of biocide and broadcasting of fungicide, fertilizer, and herbicide.

Reference(s): OPNAVINST 5100.23(series) Navy Safety and Occupational Health Program Manual; NAVMC 5100.8 Marine Corps Occupational Safety and Health Program Manual (MARCOR OSH Program Manual); NEHC-TM OM 6260 Medical Surveillance Procedures Manual and Medical Matrix (Latest Edition)

**SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANAGEMENT ASSESSMENT
MARINE CORPS COMMUNITY SERVICES
AUGUST 2016**

Respiratory Protection Program (RPP):

- Y N N/A: Are respirators required/used to control workplace exposures?
- Y N N/A: Are humanitarian use respirators used by work center personnel?
- Y N N/A: Is an up-to-date Respirator SOP available in the workplace?
- Y N N/A: Is the work center/command RPP effective*?

*An RPP is judged by IH to be effective if personnel utilize respirators correctly during operations for which they are required.

Comments: If applicable, specific respiratory hazards and the types of respirators used are listed in the individual work center hazard assessments found in the back of this report. Individuals have been identified for enrollment in the RPP Medical Surveillance Program by Industrial Hygiene; employees must receive annual RPP Training, fit testing and medical certification.

Golf Course Pest Control workers are recommended for respiratory protection until exposure to inhalation stressors are fully characterized during the application of pesticide, fungicide and herbicide. The certified pest controllers decided however, to be enrolled in the RPP regardless of the outcome of stressor exposure monitoring. This requires the employer to establish and maintain a RPP that meets all elements outlined in applicable regulatory guidance. All pest control personnel are not up to date in the program requirements at this time.

Several shops voluntarily use dust masks (filtering face piece devices): MCRD Engraving, MCRD Facilities Maintenance, MCRD Fleet Maintenance, MCRD and MCAS Skills Education Center (Auto Hobby), MCRD Java Café and MCRD MCX. Documentation of training under the requirement of 29 CFR 1910.134, Appendix D was not available.

Reference(s): NAVMC DIR 5100.8 Navy Safety and Occupational Health Program Manual; 29 CFR 1910.134 Respiratory Protection

Management of Reproductive Hazards:

- Y N N/A: Are reproductive hazards present in command work center(s)?
- Y N N/A: Any changes in reproductive hazards from previous survey?
- Y N N/A: Command properly addresses both male and female reproductive concerns?
- Y N N/A: Noise is a potential reproductive hazard for command personnel.
- Y N N/A: Heat stress is a potential reproductive hazard for command personnel.
- Y N N/A: Chemical/physical stressors are potential reproductive hazards for command.

Comments: Specific reproductive hazards are listed in the individual work center hazard assessments found in the back of this report.

Reference(s): OPNAVINST 6000.1C - Navy Guidelines Concerning Pregnancy and Parenthood; NMCPHC Reproductive Hazards Tech Manual - 2010 NMCPHC-TM-OEM 6260.10C APRIL 2010.

**SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANAGEMENT ASSESSMENT
MARINE CORPS COMMUNITY SERVICES
AUGUST 2016**

Hazardous Material Control and Management (HMC&M) Program:

- Y N N/A: Authorized User's List (AUL) Available?
- Y N N/A: Accurate AUL?
- Y N N/A: Safety Data Sheets (SDS) Files Available?
- Y N N/A: Accurate SDS File?
- Y N N/A: Personnel are aware of HMC&M hazards and use appropriate personal protective equipment?

Comments:

The AUL provides an inventory list of materials available for authorized use within the shops/facilities. Copies of SDSs for each material listed must be made available as these documents contain information about the potential hazards, personal protective equipment required, instructions to emergency response personnel and proper disposal method. Keep a current AUL and ensure SDSs are up to date and available to users. Develop a user oriented information retrieval system for all personnel. Devise a quick reference label identifying the SDS listed in the AUL for easy access to needed information.

SDSs are resource materials and technical references for Hazard Communication training. The training ensures that the hazard information of all chemicals in the workplace is communicated to the employees.

Many shops were missing SDSs and/or their chemical lists were not up-to-date.

While personnel were generally aware of hazardous material hazards, they either did not understand or chose not to wear personal protective equipment in many instances. Details are found in the Industrial Hygiene Workcenter Hazard Assessments.

Reference(s): OPNAVINST 5100.23(series) Navy Safety and Occupational Health Program Manual; 29 CFR 1910.1200 Hazard Communications; NAVMC DIR 5100.8 Marine Corps Occupational Safety and Health Manual

**SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANAGEMENT ASSESSMENT
MARINE CORPS COMMUNITY SERVICES
AUGUST 2016**

Noise and Hearing Conservation Program (HCP) :

- Y N N/A: Noise hazardous operations/equipment identified in this work center?
- Y N N/A: Noise hazardous areas/equipment properly labeled?
- Y N N/A: Are personnel recommended for HCP enrollment?
- Y N N/A: Are personnel receiving annual audiograms/HCP Training?
- Y N N/A: Are hearing protective devices (HPD) readily available for worker use?
- Y N N/A: Is the correct type/level of HPD available and being used?
- Y N N/A: Is HPD used in noise hazardous areas or when working with noise hazardous equipment?

Comments: Noise hazardous equipment and operations are listed in the Workplace Hazard Assessment and Summary of Recent Sampling Results found in the back of this report. If applicable, recommendations for the use of hearing protective devices are found there as well.

The following shops were listed as being included in the Hearing Conservation Program, but indicated they no longer have training or audiograms: MCRD Skills Education Center, MCRD Grounds Maintenance, and MCRD Golf Course (Grounds Maintenance).

Personnel enrolled in the Hearing Conservation Program should receive hearing test, current fitting of hearing protection device and refresher awareness training when getting their annual medical evaluation. This is a means to instill the crucial significance of hearing conservation not only on duty but also off duty exposures.

Reference(s): DoDI 6055.12 Hearing Conservation Program December 3, 2010; OPNAVINST 5100.23G Chapter 18, Navy Safety & Occupational Health (SOH) Program Manual, MCO 6260.3 Marine Corps Hearing Conservation Program

Ventilation:

- Y N N/A: Are ventilation systems used to control workplace exposures?
- Y N N/A: Are the systems effective and operating properly?

Comments: Exhaust systems in the MCRD MCCS Skills Education Center had been repaired and are operational, and are reported to be effective. Same goes for all the ventilation hoods in the restaurants. However, in order to ensure efficacy, ventilation surveys are recommended.

The MCRD Facility Maintenance system for the table saw is not meeting required performance. A decision will need to be made to fix the system based on usage.

It is unclear if the exhaust system at MCRD Fleet Maintenance and MCAS Recreational Equipment are sufficient to remove carbon monoxide from the bay areas. Carbon monoxide monitoring is recommended.

Refer to the Summary of Recent Sampling Results for more detail.

Reference(s): ACGIH Industrial Ventilation: A Manual of Recommended Practices, 28th Edition

SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANAGEMENT ASSESSMENT
MARINE CORPS COMMUNITY SERVICES
AUGUST 2016

Ergonomics:

- Y N N/A: Potential for ergonomic injuries for office/ administrative tasks?
- Y N N/A: Potential for ergonomic injuries for shop tasks?
- Y N N/A: Office equipment/furniture incorporates good ergonomic design?
- Y N N/A: Shop equipment/work center incorporates good ergonomic design?
- Y N N/A: Command has a formal Ergonomics Program which annually reviews ergo-related injuries and seeks to eliminate the potential for ergonomically-related discomfort/strain or injury?

MCSS follows guidance from MCAS Beaufort and MCRD Parris Island Safety Offices and requests assistance as required for program guidance.

The Ergonomics Program is a forum that encourages personnel to express and address concerns on cumulative trauma hazards that may be caused and aggravated by repetitive motions, forceful exertions, vibrations, awkward positioning, and mechanical compression of hand, wrist, and arm for prolonged periods. Suggestions will lead for other alternatives of doing shop practices and process methods especially those that may affect the overall occupational safety and health of personnel. By making workers as aware and understand, it will empower them to gain ownership of the shop's risk reduction management.

Early detection and subsequent corrective action will help prevent ergonomic related illness and injuries. Any ergonomic concern should be directed to the supervisor. The single most effective way to promote working in a healthy environment is educating workers of the cumulative trauma disorder risk and skills to reduce mental and physical stresses associated with routine work requirements.

Hand held power equipment and rotary sanders can cause hand and arm vibration injury during routine use. Continued hand and arm vibration may manifest in numbness, tingling, fatigue, increase sensitivity to cold and decreases sense of touch in the fingers and hands. Full finger vibration resistant gloves are recommended to be worn during work process with continuous, intermittent, impulsive or impact hand and arm vibration. Ensure equipment used is properly maintained to function in an optimum condition. Tools that are improperly maintained or the use of inappropriate tools for the task may increase the intensity of vibration.

Reference(s): OPNAVINST 5100.23G Chapter 23, Navy Safety & Occupational Health (SOH) Program Manual; NAVMC Directive 5100.8 MARCOR OSH Program Manual Chapter 19 Ergonomics Program; MCO 6200.1E Marine Corps Heat Injury Prevention Program

SAFETY AND OCCUPATIONAL HEALTH PROGRAM MANAGEMENT ASSESSMENT
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Other Applicable Programs:

- Y N N/A: Lead Control
- Y N N/A: Asbestos Control
- Y N N/A: Carcinogens
- Y N N/A: Heat Stress

Comments:

CARCINOGEN: Carcinogens are identified in the IH survey. See Individual Hazard Assessment. Appropriate medical surveillance, engineering controls, Personal Protection Equipment (PPE) and hazardous material awareness training are in place for worker health and safety.

HEAT STRESS: Personnel can be exposed to extreme temperature outdoors during warm weather conditions however; workers are able to take breaks as needed in shaded and well ventilated spaces. Hot weather condition is communicated to all hands in Operational Readiness Management (ORM) situational report and also announced by heat stress index colored flags. Heat Injury prevention training is conducted annually includes curriculum such as recognition, type, treatment and prevention of heat stress. The training is provided by the supervisors.

Reference (s): MARADMIN 111/15, Marine Corps Heat and Cold Stress Injury Prevention Program

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 05 AUG 2016
INSTALLATION: MARINE CORPS AIR STATION	PHONE: 228- 6377
COMMAND: MCCS	TOTAL PERSONNEL: 34 GS: 0 CONTR: 0
BUILDING NUMBER: 564	MALE NAFL: 7 GS: 0 CONTR: 0
SHOP NAME: MCCS ADMINISTRATIVE OFFICE	FEMALE NAFL: 27 GS: 0 CONTR: 0
SITE SUPERVISOR: SAFETY MANAGER LYNN BERNHARD	IH TYPE/DATE: FOUR-YEAR DOEHRS CAT 3 (RUC M02030026)

Description of Operations/Tasks: Personnel provide business and administrative operations for MCCS. A roving housekeeper provides housekeeping services approximately 3 times a week.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Ergonomics. Static posture, Contact Stress</p> <p>Providing administrative support for the business operations. Keyboarding and data management work may cause some pressure (contact stress) on parts of the body (fingers, palms, wrists, forearms, elbows, and knees) when pressed against hard or sharp surfaces.</p>	34	4-6 hours /day	<p>USED/REQUIRED:</p> <p>USED: Rest/work cycle and ergonomics training</p> <p>ENG: Adjustable chairs</p> <p>RECOMMENDED: Adjustable work surface, footrests to reduce pressure behind the knees and reduce strain on the lower back.</p>	<p>Acceptable. No reported cumulative trauma injuries for this office. An ergonomic concern should be directed to the responsible supervisor or safety manager.</p>
<p>Chemical: Cleaning Supplies: Bleach, Ethanol, Isopropanol based solutions, petroleum distillates (glass cleaner, toilet cleaner, furniture polish, multi-surface)</p> <p>Cleaning restrooms, mopping floors, surface furniture polishing and general housekeeping. Most products are sprayed on.</p>	1	1-2 hours, 2-3 times/week	<p>USED/REQUIRED:</p> <p>ENG: DV PPE: vinyl gloves for incidental contact, chemical goggles available if needed</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Low chemical concentration of solutions, short duration of use minimizes potential for exposure.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 04 AUG 2016
INSTALLATION: MARINE CORPS AIR STATION	PHONE: 228- 7106
COMMAND: MCCS	TOTAL PERSONNEL: 7 GS: 0 CONTR: 0
BUILDING NUMBER: 790	MALE NAFI: 2 GS: 0 CONTR: 0
SHOP NAME: MCAS BOWLING CENTER	FEMALE NAFI: 5 GS: 0 CONTR: 0
SITE SUPERVISOR: CHRISTINE WILDENTHALER	IH TYPE/DATE: FOUR-YEAR DOEHS CAT 3 (RUC M02030026)

Description of Operations/Tasks: The bowling center has 12 lanes for patron recreation to include some league bowling. Hours of operation: Wednesday 1600-2100; Thursday 1100-2100; Friday 1600-2300; Saturday 1300-2300; and Sunday 1300-1800. Personnel maintain the lanes and equipment and conduct sales and administrative functions. The snack bar personnel do minimal food preparation, mainly heating of pre-packaged items. This building was earthquake retrofitted during the 2010-2011 renovation.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Occasional mechanical repair and trouble shooting of pinsetter mechanism while all lanes are active. Use of noise hazardous equipment during preventive maintenance.</p> <p>2012 historical sound level measurements were above the (Occupational Exposure Level - 85 dB(A). Noise dosimetry conducted in 2015 and 2016 showed two exposures above the 85 dB (A)8-hour time-weighted average. Refer to the Summary of Recent Sampling Results section of this report.</p>	2	1-2 hours/day	<p>USED:</p> <p>3M classic earplugs (NRR 29 dB) or Moldex M2 earmuffs (NRR 26 dB)</p>	<p>Uncertain. Based on recent noise dosimetry. Additional noise dosimetry is recommended.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p> <p>Ensure mechanics continue to receive hearing conservation training.</p>
<p>Chemical: Lubricants- Petroleum Distillates (WD 40), Oil (AMF Mobil 600), compressor oil, grease (Castrol Pyroplex Blue Grease)</p> <p>General use for lubricating metal and plastic moving mechanism during routine mechanical maintenance.</p>	2	0-15 minutes/ special occasions	<p>USED:</p> <p>ENG: DV</p> <p>PPE: safety glasses, nitrile gloves available</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Short duration of use, PPE and limited regularity of application minimize exposure potential.</p>
<p>Chemical: Lane Maintenance</p> <p>AMF Approach Spotter (naphtha, xylene) (aerosol can)</p>	2	0-15 minutes/ special occasions	<p>USED:</p> <p>ENG: DV</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Short duration and infrequent use of product.</p> <p><u>Xylene is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Brunswick Dry Slide (talc, starch) (powder)</p>	2	0-15 minutes/ special occasions	<p>USED:</p> <p>ENG: DV</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Short duration and infrequent use of product.</p>
<p>Brunswick Lane Cleaner (ethylene glycol monobutyl ether, pentasodium triphosphate)</p>	2	1-2 hours/ 2-3 times/week	<p>USED:</p> <p>ENG: DV</p> <p>PPE: safety glasses, nitrile gloves if needed while filling lane machine</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Short duration and infrequent handling of product. Lane machine automatically applies lane cleaner and conditioner.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
Brunswick Lane Conditioner (petroleum distillates, mineral oil)	2	1-2 hours/ 2-3 times/week	USED: ENG: DV PPE: safety glasses, nitrile gloves if needed while filling lane machine ADM: HAZCOM training	Acceptable. Short duration and infrequent handling of product. Lane machine automatically applies lane cleaner and conditioner.
Cleaning Supplies: Bleach based solutions, GOJO, Glass and surface cleaners. Cleaning bathrooms, surface cleaning and general housekeeping. Cleaning solutions are in labeled spray able containers.	7	30-60 minutes/day	USED: ENG: DV: PPE: Nitrile gloves for incidental contact ADM: HAZCOM training	Acceptable. Low chemical concentration, PPE and short duration of use minimize exposure potential.

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
RECORDED BY: LINDA BYRNES		DATE: 05 AUG 2016		
INSTALLATION: MARINE CORPS AIR STATION		PHONE: 228- 7472		
COMMAND: MCCS		TOTAL PERSONNEL: 6 GS: 0 CONTR: 0		
BUILDING NUMBER: 1219		MALE NAFLI: 3 GS: 0 CONTR: 0		
SHOP NAME: MCCS RECREATIONAL EQUIPMENT ISSUE		FEMALE NAFLI: 3 GS: 0 CONTR: 0		
SITE SUPERVISOR: JEFF ODOM; SURVEY POC: RYAN BELL		IH TYPE/DATE: FOUR-YEAR DOEHS CAT 3 (RUC M02030026)		
Description of Operations/Tasks: The shop is responsible for storage, maintenance and issue of recreational equipment. Boat repairs are now assigned to local repair facility. Minor boat maintenance includes minor tune up and scheduled fluid replacement (oils and coolant). The only battery work conducted is battery replacement. Staff clean the restrooms and lobby with consumer cleaning products weekly.				
HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise. Operational maintenance of boats and equipment Historical 2012 sound level measurements show there is some noise hazardous equipment used.	2	15-30 minutes, 2-3 times/week	USED: 3M Classic earplug, Ear muffs	Acceptable. Limited duration of task and use of PPE is effective in minimizing exposure potential.
POL (Petroleum, Oil and Lubricant): Oil, grease and gasoline. Changing gear oil on 16 rental boats and related maintenance on gas operated equipment.	2	30-60 minutes/boat 1x/year	USED/REQUIRED: ENG: DV PPE: Nitrile gloves, safety glasses ADM: HAZCOM training	Acceptable. Limited quantity and task duration is effective in minimizing exposure potential.
Chemical: Carbon Monoxide Forklift operation in equipment warehouse. The forklift is fueled by liquefied petroleum gas. Testing of boat motors/equipment. A ventilation survey of the boat maintenance ventilation. While the ventilation calculation was below that what is recommended by the ANSI/ASHRAE 21-2001 guideline, given the limited use and open bay door, the potential for worker exposure is considered acceptable. The survey results are available in the Summary of Recent Sampling Results 2016 section of the report.	2 2	15-30 minutes/day 15-30 minutes/ Special occasions	USED: ENG: DV	Acceptable. Proper procedures, limited exposure. Minimal exposure risk. <u>Carbon Monoxide is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u> Carbon monoxide monitoring with a direct reading instrument is recommended to verify/document stressor levels. Please notify Industrial Hygiene when seasonal maintenance is scheduled so the heaviest workload can be monitored.
Ergonomics: Forceful Exertion, Awkward Postures Loading and unloading of heavy rental equipment such as tents, tables, cooking equipment. Assist patrons attaching boat trailer on to vehicles.	5	30-60 minutes/day	USED: ENG: forklift, hand trucks, carts PPE: Leather gloves, safety glasses ADM: ergonomics training	Acceptable. Proper lifting procedures, use of hydraulic lift trucks, flat carts for moving and forklift for heavy lifting.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
Ergonomics: Static posture, Contact stress Personnel work in the administrative areas. Chairs are adjustable, but workstations are not.	3	2-4 hours/day	USED: ADM: Task variability, ergonomics training	Acceptable. Based on task variability. Any ergonomic concern should be addressed.
Chemical: Sulfuric Acid Battery replacement	2	0-15 minutes/ Special occasions	USED: PPE: Nitrile gloves for incidental contact, safety glasses ADM: HAZCOM training	Acceptable. PPE limits potential for exposure.

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
RECORDED BY: LINDA BYRNES		DATE: 05 AUG 2016		
INSTALLATION: MARINE CORPS AIR STATION		PHONE: 228- 6504		
COMMAND: MCCS		TOTAL PERSONNEL: 5 GS: 0 CONTR: 0		
BUILDING NUMBER: 1283		MALE NAFLI: 0 GS: 0 CONTR: 0		
SHOP NAME: MCAS MCCS FAMILY TEAM BUILDING		FEMALE NAFLI: 5 GS: 0 CONTR: 0		
SITE SUPERVISOR: DANEILL COX		IH TYPE/DATE: FOUR-YEAR DOEHS CAT 3 (RUC M02030026)		
Description of Operations/Tasks: Provide service programs and training in enhancing command family readiness (e.g., deployment, marriage enrichment, premarital, family readiness). There are 3 trainers, the director, and an administrative assistant.				
HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Ergonomics: Static Posture, Contact Stress, Repetition Clerical and keyboarding for the administrative function of the office.	5	4-6 hours/day	USED: ENG: adjustable chairs, wrist rests, footrest ADM: task variability, ergonomics training	Acceptable. No complaints of cumulative stress issues noted during the survey. The safety representative is very engaged and will bring any issues to the Director's attention.
Ergonomics: Forceful Exertion, Awkward Posture Staff pack and transport course materials to other class locations as required.	5	30-60 minutes/special occasions	USED: ENG: carts ADM: team lifting, ergonomics training	Acceptable. Limited frequency and duration, good controls in place.
Chemical: Ethanol, Ammonium Chloride, Isopropanol (Components of Fragrances, Cleaning and Disinfecting solutions.) Cleaning and disinfecting furniture, tables and chairs in classrooms following classes. General office cleaning. Note: A housekeeper does do the majority of the cleaning and vacuuming, 2 days a week.	5	30-60 minutes/special occasions	USED: PPE: vinyl gloves available ADM: HAZCOM training	Acceptable. Low chemical concentration and duration of use minimize the potential for exposure.

<p>1. USE THE FOLLOWING CONTROL CODES: ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES: ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 04 AUG 2016
INSTALLATION: MARINE CORPS AIR STATION	PHONE: 228- 7092
COMMAND: MCCS	TOTAL PERSONNEL: 22 GS: 0 CONTR: 0
BUILDING NUMBER: 3012	MALE NAFLI: 12 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS FITNESS CENTER	FEMALE NAFLI: 10 GS 0 CONTR: 0
SITE SUPERVISOR: BILL BROWN	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: This facility was opened in 2013 and offers a rock climbing wall in the lobby area, traditional aerobic and weight training equipment, basketball court, and racquetball courts. Shower and sauna facilities are also available for patrons. Personnel maintain the recreational facility and provide health and wellness programs for military and DOD beneficiaries. A variety of training classes are available, to include High Intensity Tactical Training (HITT), cardio, spin, weight, circuit, and core/flex. The facility is staffed 24/7 with workers on 3 shifts.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Chemical: Sodium Carbonate, Sodium metasilicate, Alcohol, Sodium doecylbenzene sulfonates (Ecolab Facillipro Pre-measured Laundry Deetergent)</p> <p>Laundering towels-estimated 40 loads/day. Dexter Industrial Washer T-450 Dexter T-30X2 dryers</p>	20	30-60 minutes/day	<p>USED: ENG: Pre-measured product in dissolvable bag ADM: HAZCOM training</p>	Acceptable. The detergent is pre-packaged so there is no skin contact with the material.
<p>Chemical: Bleach</p> <p>Bleach is added to laundry washloads and measure by the capful.</p>	20	0-15 minutes/day	<p>USED: ENG: DV PPE: nitrile rubber ADM: HAZCOM training</p>	Acceptable. Based on controls in place and limited duration.
<p>Chemical: Diethylene glycol monoethyl ether, Propylene glycol, Diethylaminoethanol (WiWax)</p> <p>Cleaning the wooden floors of basketball/volleyball court. Product is poured into floor machine.</p>	20	2-4 hours/monthly	<p>USED: ENG: DV PPE: Nitrile gloves, safety goggles available for pouring ADM: HAZCOM training</p>	Acceptable. Low concentration of chemical and regularity of use minimize exposure potential. Finishing solution is constituted with water as per manufacturer's direction.
<p>Chemical: Ethanolamine, Sodium Xylenesulfonate(Ecolab Bright Speed)</p> <p>Mopping workout room floors. Pre-mixed amount of cleaner is added to water for mopping. Cleaning is conducted during all 3 shifts.</p> <p>Cleaning court floors. Pre-mixed amount of cleaner is added to floor machine.</p>	20	2-4 hours/day	<p>USED: ENG: DV PPE: Nitrile gloves ADM: HAZCOM training</p> <p>ENG: DV PPE: Nitrile gloves, chemical goggles available for pouring ADM: HAZCOM training</p>	Acceptable. Low concentration of chemicals and regularity of use minimize exposure potential.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Chemical: Ethanol, Acetic Acid and Quaternary Ammonium compounds (20 Neutral Cleaner and Disinfectant)</p> <p>Replenishing of disinfectant from dispensing stations for sanitizing fitness equipment. Equipment is cleaned approximately one time per shift.</p> <p>Patrons are encouraged to wipe equipment after use with Gym wipes.</p>	20	2-4 hours/daily	<p>USED:</p> <p>ENG: DV</p> <p>PPE: Nitrile gloves</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Low chemical concentration of solutions and short duration of use minimizes exposure potential.</p>
<p>Chemical: benzyl ammonium chloride (Ecolab 66 Heavy Duty Alkaline Bathroom Cleaner)</p> <p>Used daily to clean restrooms</p>	20	30-60 minutes/daily	<p>USED:</p> <p>ENG: DV</p> <p>PPE: nitrile gloves available</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Low chemical concentration and short duration of use minimize exposure potential.</p>
<p>Chemical: naphtha, mineral oil (Ecolab 5044, Lookin' Good) metal cleaner</p> <p>Used for cleaning metal equipment</p>	20	30-60 minutes/week	<p>USED:</p> <p>ENG: DV</p> <p>PPE: nitrile gloves, chemical goggles as needed</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Low chemical concentration and short duration of use minimize exposure potential.</p>
<p>Stoddard solvent, petroleum distillates (Hilco Lube)</p> <p>Used for lubricating gym equipment as necessary</p>	20	30-60 minutes/week	<p>USED:</p> <p>ENG: DV</p> <p>PPE: nitrile gloves, chemical goggles as needed</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Low chemical concentration and short duration of use minimize exposure potential.</p>
<p>Alkaline cleaner (Ecolab Heavy Duty Alkaline Bathroom Cleaner and Disinfectant)</p> <p>Used as need for cleaning restrooms</p>	20	30-60 minutes/special occasions	<p>USED:</p> <p>ENG: DV</p> <p>PPE: nitrile gloves, chemical goggles as needed</p> <p>ADM: HAZCOM training</p>	<p>Acceptable. Low chemical concentration and short duration of use minimize exposure potential.</p>
<p>Biological: Bloodborne Pathogens</p> <p>Staff may come in contact with blood and body fluids while cleaning or in the event of a patron injury.</p>	22	30-60 minutes/special occasions	<p>USED:</p> <p>ENG: spill kit</p> <p>ADM: BBP SOP, BBP training</p>	<p>Acceptable. Based on controls in place.</p>
<p>Ergonomics: Awkward Posture, Static Posture, Contact Stress</p> <p>Sitting doing administrative tasks such as computer work and checking in patrons at the front desk.</p>	22	1-2 hours/daily	<p>USED:</p> <p>ENG: Adjustable chairs, footrests</p> <p>ADM: task variety, ergonomics training</p>	<p>Acceptable. Based on controls in place.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Ergonomics: Awkward Posture, Physical Exertion</p> <p>Staff members offer physical training to patrons, which may involve heavy exertion during classes.</p> <p>Cleaning of equipment may require physical exertion and moving in awkward postures.</p>	<p align="center">20</p>	<p>2-4 hours/ daily</p>	<p>USED:</p> <p>ADM: task variety, ergonomics training</p>	<p>Acceptable. Based on controls in place.</p>
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<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 03 AUG 2016
INSTALLATION: MARINE CORPS AIR STATION	PHONE: 228- 7290
COMMAND: MCCS	TOTAL PERSONNEL: 54 GS: 1 CONTR: 0
BUILDING NUMBER: 1142	MALE NAFLI: 1 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS CHILD DEVELOPMENT CENTER	FEMALE NAFLI: 52 GS 1 CONTR: 0
SITE SUPERVISOR: HELEN ROGERS	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: Personnel provide safe care (includes guided play and learning activities) to children of active Marine Corps, Marine Corps and DoD civilian personnel ages 6 weeks to 5 years old, Monday-Friday 0500-1900. The CDC is nationally accredited through the National Association for the Education of Young Children (NAEYC) and is certified annually by DoD. Staff includes the director, front desk staff, caregivers, a custodian, and 2 kitchen staff. Two meals and late evening snack are prepared and served daily. Kitchen equipment consists of grill, convection oven and brazer.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Ergonomics. Contact Stress, Awkward Posture</p> <p>Providing clerical support for the business operations.</p> <p>During keyboarding and data manipulations may cause some pressures on parts of the body (fingers, palms, wrist, forearms, elbows and knees) when pressed against hard or sharp surfaces.</p>	4	2-4 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle and ergonomics training, adjustable chairs</p>	<p>Acceptable. No reported cumulative trauma injury as of this survey period.</p> <p>Any ergonomic concern should be directed to the supervisor.</p>
<p>Ergonomics. Physical Exertion, Awkward Posture</p> <p>Lifting and bending during care giving.</p>	50	6-8 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle and Ergonomics training, Proper lifting technique.</p>	<p>Acceptable. No reported cumulative trauma injury as of this survey period.</p>
<p>Ergonomics. Static Posture</p> <p>Kitchen staff stand on rubber mats during food preparation.</p>	2	6-8 hours/day	<p>USED:</p> <p>ENG: rubber mats</p> <p>ADM: Task variability, ergonomics training</p>	<p>Acceptable. Based on controls in place. No reported cumulative trauma injury.</p>
<p>Physical. Noise</p> <p>A noise survey could not be located for the kitchen. It is unknown if the equipment and scullery area are noise hazardous during operation.</p>	2	2-4 hours/day	<p>USED:</p> <p>None</p>	<p>Uncertain. A sound level survey is recommended to verify potential noise hazardous equipment.</p>
<p>Infection: Blood Borne Pathogen from Blood and Body fluids.</p> <p>Care giving, diaper changing and handling of blood and body fluids.</p>	52	6-8 hours/day	<p>USED/REQUIRED:</p> <p>ADM: Universal precautions, Infection Control Training, SOP</p> <p>PPE: Nitrile gloves</p>	<p>Acceptable. Procedural infection control technique and up to date training. Personnel are entered in the Blood borne Pathogen and Child Care Worker Programs.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
Chemicals: Sulfuric Acid (RESOLVE Carpet Cleaner 1-2.5 %), Spot cleaning of carpet stains.	1	15-30/ minutes/ special occasions	USED: ENG: DV ADM: Hazard Communication training PPE: Nitrile/Vinyl gloves	Acceptable. Low chemical concentration, short duration, infrequent use and availability of PPE minimizes exposure potential.
Hydrochloric Acid (ABC Toilet Bowl Cleaner 23%). Cleaning solutions are in spray able containers and janitorial work is conducted at the end of daily operations.	1	30-60 minutes/daily	USED: ENG: DV ADM: Hazard Communication training PPE: Nitrile/Vinyl gloves, Splash goggles	Acceptable. Low chemical concentration, short duration of use of availability of PPE minimizes exposure potential.
Chemicals: 2-butoxyethanol, isopropyl alcohol (Ecolab baseboard stripper) Used to remove scuffs and marks	1	0-15 minutes/ Special occasions	USED: ENG: DV ADM: Hazard Communication training	Acceptable. Low chemical concentration, short duration and infrequent use.
Chemicals: Ethanolamine (Bright Speed) Bright Speed is used to clean floors. A contract is let when floors need to be stripped.	1	1-2 hours/daily	USED: ENG: DV ADM: Hazard Communication training, available nitrile gloves, chemical goggles	Acceptable. Based on low chemical concentration and Based on controls in place.
Chemical: Bleach, Laundry Detergents Laundering soiled clothes and placement rugs.	50	10-15 minutes/day	USED: ADM: nitrile gloves for handling soiled items, SOP	Acceptable. Use of pre-packaged detergent.
Mixing bleach based solutions for cleaning table top surfaces and disinfecting toys.	48	10-15 minutes/day	ENG: DV PPE: nitrile gloves (incidental contact), goggles and waterproof aprons ADM: SOP, Hazard Communication training	Acceptable. Low chemical concentration, short duration and use of PPE use minimize exposure potential.
Cleaning of table top surfaces and disinfecting toys.	45	30-60 minutes/day	ENG: DV PPE: nitrile gloves (incidental contact) ADM: SOP, Hazard Communication training	Acceptable. Low chemical concentration, short duration and use of PPE use minimize exposure potential.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Chemical: Potassium Carbonate (Ecolab High Temp Grill Cleaner)</p> <p>Kitchen workers would clean the grill after use.</p> <p>Other Ecolab products (Rinse Max II and Wash Max) are autofed to the scullery area and pose no contact hazard to staff.</p>	<p align="center">2</p>	<p>15-30 minutes/day</p>	<p>USED:</p> <p>ENG: DV, eyewash</p> <p>PPE: chemical goggles available, vinyl gloves for incidental contact</p> <p>ADM: Hazard communication training</p>	<p>Acceptable. Low chemical concentration, short duration and available PPE minimize exposure potential.</p>
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1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS
 PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION
 ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.
 UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD
 REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD
 CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 03 AUG 2016
INSTALLATION: MARINE CORPS AIR STATION	PHONE: 228- 7640
COMMAND: MCCS	TOTAL PERSONNEL: 17 GS: 0 CONTR: 0
BUILDING NUMBER: 1632	MALE NAFLI: 1 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS YOUTH CENTER LAUREL BAY	FEMALE NAFLI: 16 GS: 0 CONTR: 0
SITE SUPERVISOR: ASHLEY UTSEY	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: Personnel provide safe care to children of active Marine Corps, Navy, and DoD civilian employees. The facility is open Monday-Friday from 0500-1900 for children ages 5-12. During the school year children are transported from the Youth Center to school and after school back to the Youth Center. The School Age Care program is nationally accredited. Staff consists of the front desk personnel, Director, Asst. Director, a custodian and program associates.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Ergonomics. Contact Stress, Awkward Posture</p> <p>Providing clerical support for the business operations.</p> <p>During keyboarding and data manipulations may cause some pressures on parts of the body (fingers, palms, wrist, forearms, elbows and knees) when pressed against hard or sharp surfaces.</p>	4	2-4 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle and ergonomics training, adjustable chairs</p>	<p>Acceptable. No reported cumulative trauma injury as of this survey period.</p> <p>Any ergonomic concern should be directed to the supervisor.</p>
<p>Ergonomics: Physical Exertion, Awkward Posture</p> <p>Lifting and bending in awkward position during youth activity interaction.</p>	14	6-8 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle and Ergonomics training, Proper lifting technique.</p>	<p>Acceptable. Based on controls in place.</p> <p>Use good lifting technique by keeping the load close to the body. Replace lifting with pushing or pulling if possible. Use teams when handling bulky or difficult work task and enforce two person lift as necessary.</p>
<p>Infection: Blood Borne Pathogen</p> <p>Physical interaction during recreational and developmental activities with possible exposure to blood and body fluids or during student assistance with blood sugar testing.</p>	17	6-8 hours/day	<p>USED:</p> <p>ENG: Sharps container</p> <p>ADM: Universal blood bore pathogen precautions, Infection Control Training</p> <p>PPE: Nitrile gloves</p>	<p>Acceptable. Procedural infection control technique and current training are effective.</p> <p>Personnel are enrolled in the Blood Borne Pathogen and Child Care Worker Programs.</p>
<p>Chemical: Bleach</p> <p>Mixing bleach based cleaning solutions for spraying table top surfaces and disinfecting toys.</p>	12	10-15 minutes/day	<p>USED/REQUIRED:</p> <p>ENG: DV, eyewash</p> <p>PPE: Rubber gloves, goggles and waterproof aprons.</p> <p>ADM: HAZCOM training, SOP</p>	<p>Acceptable. Low chemical concentration, duration of use and method of application are effective in minimizing exposure potential.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Chemical: Sodium Xylenesulfonate (Ecolab Ultra Concentrated Neutral Floor Cleaner)</p>	<p>1</p>	<p>1-2 hours/ 2-3 times/week</p>	<p>USED: ENG: DV ADM: Follow manufacturer dilution PPE: Nitrile gloves, chemical goggles available ADM: HAZCOM training</p>	<p>Acceptable. Based on controls in place.</p>
<p>This product is used in the Ecolab wet vac and is diluted prior to use, thereby making it a minimal hazard.</p>				

1. USE THE FOLLOWING CONTROL CODES:

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ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.
UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD
REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD
CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

RECORDED BY: MELODY HUBBS	DATE: 08 AUG 2016
INSTALLATION: MARINE CORPS AIR STATION	PHONE: 843-228-7695
COMMAND: MCCS	TOTAL PERSONNEL: 7 GS: 0 CONTR: 0
BUILDING NUMBER: 1283	MALE NAFLI: 1 GS: 0 CONTR: 0
SHOP NAME: MCAS FOOD COURT	FEMALE NAFLI: 6 GS 0 CONTR: 0
SITE SUPERVISOR: PETE IDSALL	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: Food Service Operations administrative and management functions are located primarily at the MCAS Food Court, building 1283. Food service personnel at this facility prepare and serve meals and perform facility clean-up; personnel work from 0630-1700. The kitchen is equipped with deep fryers, ovens and flat top grills. Personnel serve food from the MCAS Food Court but they may rotate to work at other restaurant venues as needed. There are currently personnel at the MCAS Food Court: a manager, 3 cooks, and 3 food service personnel. The cooks share duties; they spend approximately 6-8 hours prepping food and cooking, and 2 hours cleaning the facility each day. The dishwasher spends the majority of his time washing dishes, but helps with cleaning and other duties as needed. Management helps out in the kitchen as needed. Personnel perform housekeeping duties in sweeping, mopping, cleaning the kitchen, clearing tables, and cleaning the dining room.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Kitchen Duties Food preparation/washing dishes</p> <p>No major noise sources are noted for employees performing food preparation and hand washing dishes. Three cooks perform this duty, and the manager fills in where needed.</p> <p>Incidental noise sources can include people communicating or people occasionally hand washing pots/pans.</p>	4	Daily, 6-8 hours	<p>USED:</p> <p>PPE: None</p>	<p>Uncertain. No historical noise dosimetry data (one measurement) is available for this shop. Additional measurement data is required to fully characterize noise exposure in this process. Personnel stated that the ventilation systems pose a noise hazard in this shop.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise</p> <p>Sales Service Associates</p> <p>No major noise sources are noted for employees during food service duties.</p> <p>Incidental noise sources can include communicating with other personnel.</p>	2	Daily, 6-8 hours	<p>USED/REQUIRED:</p> <p>None required</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise</p> <p>Administrative</p> <p>No major noise sources are noted for employees during administrative tasks.</p> <p>Incidental noise sources can include personnel communicating and incidental kitchen noise.</p> <p>Incidental noise sources can include people communicating or people occasionally hand washing pots/pans.</p>	1	30-60 minutes/daily	<p>USED/REQUIRED:</p> <p>None required</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Chemical: Kitchen cleaning ammonium hydroxide, sodium hypochlorite, sodium hydroxide, sodium dodecylbenzene sulfonate, Ethoxylated alkyl sulfate, alcohol ethoxylate</p> <p>Personnel are using bleach to clean, and spray it without using safety glasses. Personnel change out containers of corrosives and irritants (which are delivered through a distribution station for dilution) while not using safety glasses.</p>	<p align="center">4</p>	<p>1-2 hours/day</p>	<p>USED:</p> <p>PPE: Vinyl Gloves, Vinyl Aprons</p> <p>REQUIRED:</p> <p>PPE: Safety goggles Hazard Communication Training PPE Training</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety glasses when cleaning with these products. SDSs were not available for all products being used. PPE was not kept in a sanitary condition and were not being used (safety goggles/nitrile gloves).</p> <p>Dust masks have been provided and are not being used by personnel, but if they were to use them then Appendix D of 29 CFR 1910.134 has not been provided to personnel.</p> <p>Also, an eyewash has not been installed in this shop. Recommend contacting MCCC Safety Manager for assistance.</p> <p>PPE retraining is recommended.</p>
<p>Chemical: Sales Associates -Sodium hypochlorite</p> <p>Personnel use cleaning materials containing bleach to clean the counters/tables.</p> <p>Chronic or prolonged skin contact with these products may cause drying, defatting, inflammation and dermatitis of the skin.</p>	<p align="center">3</p>	<p>1-2 hours/day</p>	<p>USED:</p> <p>PPE: Vinyl Gloves ADM: HAZCOM Training, PPE Training</p> <p>REQUIRED:</p> <p>Safety goggles</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety glasses or goggles when cleaning with these products.</p> <p>PPE retraining is recommended.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Physical: Ergonomics: Prolonged standing, work-rate/repetition, forceful exertion</p> <p>The majority of work involves food preparation, cleaning the kitchen and equipment, and selling products. Sales associates have task variety (waiting on customers and cleaning surfaces), cooks have task variety in food preparation and cleaning the kitchen, and management performs all tasks including limited administrative work.</p> <p>The office workstation was not ergonomically designed, but personnel spent little time at this workstation.</p> <p>Heavy lifting is performed on a routine basis during supply related functions. Items can weigh up to 40 pounds.</p> <p>Due to frequent heavy lifting and required tasks, potential for ergonomic injury is plausible. The MCRD Safety Office Ergonomics Program Manager can be contacted for assistance with ergonomics issues and concerns and program assistance.</p> <p>Personnel receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	<p align="center">7</p>	<p>6-8 hours daily</p>	<p>USED:</p> <p>ADM: Training, Task Variety, Breaks, Two-man lift</p> <p>ENG: Dollies/Carts, Anti-fatigue Mats</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p>
<p>Physical: Heat Stress</p> <p>Building 1283 HVAC system is reported to be operated at another location which causes it to become too hot at times. While canopy hoods are located in the kitchen, heat stress was stated to become a potential hazard.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	<p align="center">7</p>	<p>6-8 hours daily</p>	<p>USED:</p> <p>ADM: Hydration, Rest Breaks</p> <p>ENG: DV, LV-VENT-Canopies (2)</p>	<p>Acceptable. Based on reported controls and no reports of heat or cold injuries or illnesses. No historical data is available.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p> <p>Recommend workers receive heat stress training.</p>

1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS

PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION

ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.

UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD

REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD

CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 05 AUG 2016
INSTALLATION: MARINE CORPS AIR STATION	PHONE: 228- 7682
COMMAND: MCCS	TOTAL PERSONNEL: 8 GS: 0 CONTR: 0
BUILDING NUMBER: 596	MALE NAFLI: 0 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS LIBRARY	FEMALE NAFLI: 8 GS: 0 CONTR: 0
SITE SUPERVISOR: SHARON COOPER	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: Personnel provide library and administrative support services to patrons, including: children's story time; children's computers; game room; access to computers, printers, scanners and fax machines; wide variety of books, eBooks, CDs, and DVDs for checkout. The library has varying hours Monday-Saturday. The library was renovated in 2015 to better serve patrons. Staff do basic housekeeping using consumer products approximately 1 hour/day. Note: There are 4 staff associated with this location, with 4 "floaters" that work between MCAS and MCRD.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Ergonomics. Contact Stress, Awkward Posture</p> <p>Providing clerical support for the business operations. Keyboarding and data manipulations may cause some pressures on parts of the body (fingers, palms, wrist, forearms, elbows and knees) when pressed against hard or sharp surfaces.</p> <p>Other tasks that offer variability include make photo copies, making phone calls, and using the fax machine.</p> <p>Additionally, chair arms are not adjustable, nor is workstation height.</p>	8	2-4 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle, work task variability, and ergonomics training.</p> <p>RECOMMENDATION</p> <p>Adjustability of work surface and chairs. Foot rests to reduce pressure behind knees and reduce strain on the lower back.</p>	<p>Acceptable. Based on controls in place and no known injuries.</p> <p>Any ergonomic concern should be directed to the supervisor. As furniture is replaced, select chairs and workstations with adjustable features.</p>
<p>Ergonomics. Physical Exertion, Awkward Posture</p> <p>Staff reshelve books, CDs, DVDs</p>	8	1 hour/day	<p>USED:</p> <p>ENG: carts</p> <p>ADM: Task variability, ergonomics training</p>	<p>Acceptable. Based on controls in place and no known injuries.</p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES INSTALLATION: MARINE CORPS AIR STATION COMMAND: MCCS BUILDING NUMBER: 1283 SHOP NAME: MCAS MCCS MARINE CORPS EXCHANGE SITE SUPERVISOR: SSGT MUIR		DATE: 05 AUG 2016 PHONE: 228- 7769 TOTAL PERSONNEL: 24 GS: 0 CONTR: 0 MALE MIL: 2 GS: 0 MALE NAFL: 5 GS: 0 CONTR: 0 FEMALE NAFL: 17 GS 0 CONTR: 0 IH TYPE/DATE: FOUR-YEAR DOEHRS CAT 3 (RUC M02030026)		
Description of Operations/Tasks: The MCX provides retail sales for goods and services to DoD personnel and retiree benefit holders and family members. This store also has a gasoline station. There is a GNC store and barber shop located in this building, but they are contractor operated.				
HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Ergonomics: Static Posture, Repetition Cashiers sit or stand while checking out patrons.	23	6-8 hours/day	USED: ENG: Mats to stand on ADM: Work/rest cycle, ergonomic training. The cashiers are given two fifteen minute break and 30 minutes break during an eight hour shift.	Acceptable. No complaint of any cumulative stress injury during this survey. Ensure cashiers know how to report ergonomic issues in the workplace.
Ergonomics: Physical Exertion, Awkward Posture Lifting and stacking merchandise in the storage area and refrigerators and on store shelves.	6	4 hours/day	USED: ENG: pallet jack, hand cart to move merchandise to shelving area ADM: Work/rest cycle, ergonomic training. The storage area workers are given two fifteen minute break and 30 minutes break during an eight hour shift. PPE: Steel toe shoes	Acceptable. No complaint of any cumulative stress injury during this survey.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
Cleaning Supplies: Bleach, Ethanol, Isopropanol based solutions. (Toilet, Surface/floor, Glass cleaners). Cleaning restrooms, mopping floors daily. Cashiers wipe counters daily.	1	1-2 hours/daily	USED: ENG: DV: PPE: Nitrile gloves ADM: Hazard Communication RECOMMENDED: Safety glasses or chemical goggles where splashes could occur	Acceptable. Low chemical concentration of solutions and relatively short duration of use minimizes potential for exposure.
	23	0-15 minutes/daily	ADM: Hazard Communication training	Acceptable. Low chemical concentration of solutions and short duration of use minimizes potential for exposure.
Chemical: Gasoline (in the event of spill during patron fueling)	24	15-30 minutes/Special occasion	USED: ENG: Gasoline shut-off ADM: Emergency SOP, spill kit, training	Acceptable. Based on controls in place.

1. USE THE FOLLOWING CONTROL CODES: ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION
2. USE THE FOLLOWING EXPOSURE CODES: ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES INSTALLATION: MARINE CORPS AIR STATION COMMAND: MCCS BUILDING NUMBER: 1219 SHOP NAME: MCAS SKILLS EDUCATION CENTER (AUTO HOBBY SHOP) SITE SUPERVISOR: DALTON GORDON	DATE: 05 AUG 2016 PHONE: 228- 7586 TOTAL PERSONNEL: 3 GS: 0 CONTR: 0 MALE NAFLI: 3 GS: 0 CONTR: 0 FEMALE NAFLI: 0 GS: 0 CONTR: 0 IH TYPE/DATE: FOUR-YEAR DOEHS CAT 3 (RUC M02030026)
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Description of Operations/Tasks: Personnel assist customers in performing routine personal vehicle maintenance such as fluid check and replacement, minor engine tune up, tire rotation, occasional brake and any other related motor repair works. Hand tools and pneumatic tools are provided to patrons including the appropriate personal protective equipment for stressors generated by the job. The shop sells automotive oils to patrons. No change from previous survey.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise. Operations in maintenance bay. Power tools that generate hazardous noise were occasionally used during maintenance by vehicle owners. No further noise surveys or dosimetry were conducted since the 2014 walkthrough visit.	3	30-60 minutes/day	USED: PPE: <u>Single Hearing Protection</u> (Plugs OR Muffs) are required when noise levels are 85-103 dB (A). Hearing protection device is available upon request of customer.	Acceptable. Regularity and limited duration of operation minimize exposures. Personnel assist patrons during car maintenance and are aware of noise hazards <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Chemical: Carbon Monoxide. Stationary engine testing. The 2015 ventilation survey of the tail pipe exhaust system found it exceeded the recommended exhaust rate of 100-200 cubic feet per minute (CFM). Please refer to the Summary of Recent Sampling Results section of this report for more detail.		0-15 minutes/day	USED/REQUIRED: LEV: Tail pipe exhaust ventilation ADM: Hazard communication training	Acceptable. Adequate engineering controls and dilution ventilation by keeping the gate doors open during operations minimize exposure potential. <u>Carbon Monoxide is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Chemical: Ethylene Glycol. Changing and replenishing engine coolant	3	30-60 minutes/day 1x a week	USED/REQUIRED: PPE: Nitrile Gloves and safety goggles ADM: Hazard communication training	Acceptable: Patrons do the maintenance work but there are occasions that employees assist in the process. Used coolant is collected and stored in a satellite HAZWASTE station. <u>Ethylene Glycol is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
Chemical-POL: Petroleum, Oils, Lubricants Engine oil check and fluid replacement.	3	30-60 minutes/day	USED: PPE: Nitrile Gloves and safety goggles ADM: Hazard Communication training	Acceptable. Limited materials used and duration of exposure. Used coolant is collected and stored in a satellite HAZWASTE station.
Physical: Respirable Dust (Possible Asbestos). Assisting patrons during brake jobs. Patrons perform the brake work. Shop personnel provide technical assistance as needed.	3	30-60 minutes/ 1x/month	USED: ENG: Wet Method and Tire Hub Vacuum. PPE: N95 Particulate mask (available if requested) ADM: Risk awareness signs.	Acceptable: The source, regularity and duration of the task including proper shop procedures minimize exposure potential. Verify that voluntary respirator users receive training per 29 CFR 1910.134, Appendix D.

<p>1. USE THE FOLLOWING CONTROL CODES: ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES: ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS AIR STATION COMMAND: MCCS BUILDING NUMBER: 554 SHOP NAME: MCAS O'CLUB SITE SUPERVISOR: PETE IDSALL		DATE: 09 AUG 2016 PHONE: 843-228-7695 TOTAL PERSONNEL: 9 GS: 0 CONTR: 0 MALE NAFL: 3 GS: 0 CONTR: 0 FEMALE NAFL: 6 GS: 0 CONTR: 0 IH TYPE/DATE: FOUR-YEAR DOEHS CAT 3 (RUC M02030026)		
Description of Operations/Tasks: Food Service Operations administrative and management functions are located primarily at the Officer's Club, building 554. Food service personnel at this facility prepare and serve meals and perform scullery clean-up. Personnel also rotate jobs to work at any of the MCCS restaurants. The kitchen is equipped with deep fryers, ovens and flat top grills. There are currently 7 personnel at Traditions: a general manager, an assistant manager, 2 cooks, 1 general laborer, and 4 waitresses. Personnel spend approximately 6 hours prepping food, 6 hours serving food/cooking and 2 hours cleaning the facility each day. One waitress also operates the dishwasher, but helps with cleaning and other duties as needed. Management helps out in the kitchen as needed. Personnel perform housekeeping duties in sweeping, mopping, cleaning the kitchen, clearing tables, and vacuuming.				
HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise Scullery Dishes, utensils, pots and pans are sent through an automated washer and some are washed by hand. Afterwards the dishes, utensils, pots and pans are stacked onto a drying rack. The dishwasher spends the majority of his time washing dishes, but the scullery is open to the kitchen and all personnel may be exposed. Handling cookware plates and utensils produces hazardous noise.	1	Daily 2-4 hours	USED: PPE: None	Uncertain. No historical noise dosimetry data (one measurement) is available for this shop. Additional measurement data is required to fully characterize noise exposure in this process. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Physical: Noise Food Service/Bartenders No major noise sources are noted for employees during food service duties except while in the kitchen. Incidental noise sources can include communicating with other personnel.	4	Daily 6-8 hours	USED: PPE: None	Uncertain. Limited duration of incidental noise exposure; no historical data available. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Physical: Noise Cooks The scullery is not in a separate room and is close to the area where cooks perform food preparation/cook orders. Cooks stated it does get loud in the kitchen.	2	Daily 6-8 hours	USED/REQUIRED: None required	Uncertain: No historical noise dosimetry data (one measurement) is available for this shop. Additional measurement data is required to fully characterize noise exposure in this process. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
<p>Physical: Noise</p> <p>Personnel vacuum daily as needed. Limited duration of incidental noise exposure. No PPE/hearing conservation training provided.</p>	1	Daily 0-15 minutes	<p>USED:</p> <p>PPE: None</p>	<p>Acceptable. Limited duration of incidental noise exposure; no historical data available.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Chemical: Scullery Cleaning Lime Away: Urea. Ecolab APEX Manual Detergent/ Ecolab Multi-Quat Sanitizer: sodium dodecylbenzene sulfonate, Ethoxylated alkyl sulfate.</p> <p>Manual and automatic dishwashing (Lime Away, APEX Manual Detergent, and Multi-Quat) products contain corrosives and eye irritants. Personnel change out containers of concentrated cleaners that are delivered via a distribution system.</p>	1	1-2 hours/day	<p>USED:</p> <p>PPE: Vinyl Gloves, chemical splash goggles, vinyl apron, nitrile elbow length gloves</p> <p>ADM: PPE Training, Hazard Communication Training</p> <p>REQUIRED: Safety Goggles/Glasses</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>SDSs were not available for all products being used. Shop does not have an eyewash installed. SDS list was not updated. Personnel change out containers of concentrated cleaners that are delivered via a distribution system and do not use safety glasses/goggles.</p> <p>PPE retraining is recommended.</p>
<p>Chemical: Kitchen cleaning sodium hydroxide (Ecolab Greasestrip Plus)</p> <p>Cooks clean the grill daily with Ecolab Greasestrip Plus (not in a dilution delivery system, is not diluted) that contains sodium hydroxide. They only use neoprene gloves. They also clean surfaces as needed with dilute Multi-quat that is diluted via a distribution system and the SDS lists it is non-hazardous once it is diluted.</p>	2	30-60 minutes/daily	<p>USED:</p> <p>PPE: Neoprene gloves</p> <p>ADM: PPE Training, HAZ COM Training</p> <p>REQUIRED: Safety goggles/glasses</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel need to wear safety glasses/goggles when cleaning the grill.</p> <p>PPE retraining recommended.</p> <p>An eyewash has not been installed.</p>
<p>Chemical: Custodial cleaners Ecolab Oasis 299: phosphoric acid; Ecolab Neutral Disinfectant Cleaner, 2-butoxyethanol, propylene glycol propyl ether; dodecyl dimethyl ammonium chloride; Ecolab: Glass Force (non-hazardous)</p> <p>The one general laborer cleans the bathrooms daily and the facility as needed.</p>	1	1-2 hours/daily	<p>USED:</p> <p>PPE: Nitrile and Rubber Gloves, Vinyl apron, Chemical Splash Goggles</p> <p>ADM: HAZ COM Training, PPE Training</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>SDSs were not available for all cleaners being used. SDS was not up to date.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Physical: Ergonomics; Prolonged standing, work-rate/repetition, forceful exertion; dynamic posture</p> <p>The majority of work involves food preparation, cleaning the kitchen and equipment, and serving patrons. Servers have task variety (waiting on customers and cleaning surfaces), cooks have task variety in food preparation and cleaning the kitchen, one general laborer cleans the facility/kitchen, and management performs all tasks as needed including limited administrative work.</p> <p>The office workstation has ergonomic chairs and adjustable monitors, but personnel spent little time at this workstation.</p> <p>Forceful exertion is rarely performed on a limited basis during supply related functions; vendors unload the trucks for personnel.</p> <p>Personnel receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	<p>2</p> <p>7</p>	<p>1-2 hours daily for Administration</p> <p>6-8 hours/day for cooks, servers, and the 1 general laborer. all other employees</p>	<p>USED:</p> <p>ADM: Training, Task Variety, Breaks</p> <p>ADM: Training, Task Variety, Breaks</p> <p>ENG: Dollies/Carts, Two-man lift</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p>Recommendation: Provide ergonomically designed office workstations.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p> <p>Recommendation: anti-fatigue mats for food preparation personnel and servers when attending the bar.</p>
<p>Indoor Air Quality (IAQ) Concerns:</p> <p>Building 1283 HVAC system is reported to be adequate. Canopies are located in the kitchen that help to ventilate cooking operations.</p>	<p>9</p>		<p>USED:</p> <p>ENG:DV, LV</p>	<p>Acceptable. Based on no injuries/illnesses. No mold or mildew was present.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
<p>Physical: Heat Stress/Cold Stress</p> <p>Building 554 HVAC system is reported to be operated at another location which causes it to become too hot at times. While canopy hoods are located in the kitchen, heat stress was stated to become a potential hazard.</p> <p>In the event that this happens, ensure personnel have heat stress training.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	9	Daily, 6-8 hours	<p>USED:</p> <p>ADM-Hydration, Flags, Rest Breaks</p> <p>ENG- HVAC VENT-Canopies (2)</p>	<p>Uncertain. Personnel have not had heat stress training and not historical data is available. Also, one server stated they did suffer from heat stress once when the HVAC went down.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p> <p>Note: Heat stress training is recommended.</p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 192 SHOP NAME: MCCS ENGRAVING SHOP SITE SUPERVISOR: SHERYL COTTON	DATE: 12 AUG 2016 PHONE: 228- 1501 TOTAL PERSONNEL: 6 GS: 0 CONTR: 0 MALE: NAFI: 1 GS: 0 CONTR: 0 FEMALE: NAFI: 5 GS: 0 CONTR: 0 IH TYPE/DATE: TWO YEAR DOEHS CATEGORY 2 (RUC M02030026)
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Description of Operations/Tasks: The shop makes made to order plaque, banners, trophies and memorabilia such as printed mugs, shirts and engravings. Operates two laser engraving machine and three rotary engravers. Solvents are used to clean engraved products. Laser in the engraving machine is Class 4. There is 1 manager, 1 assistant manager, 1 graphic artist, 3 operations assistants, 1 engraver, 1 sales associate/cashier.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: LASER (Non ionizing radiation) Imprinting on wood and nonmetallic surfaces. Laser is oriented downward.	2	6-8 hours/day	USED: ENG: Procedural and built in safety features in the machine. ADM: A warning sign for the laser. PPE: Eye protection is available but was not being used due to the engineering control.	Acceptable. Effective operational procedures. The laser machines are equipped with an automatic shut off switch that deactivates the laser when the imprinting cavity is open. No reported injuries/illnesses.
Physical: Glycerin Personnel create banners for the full shift. Two types of banners are created, 6 foot and 4 foot banners. Cartridges are changed out weekly, and they are self-contained cartridges.	1	6-8 hours/day	USED: ENG: Ink contained in cartridges ADM: HAZ COM Training	Acceptable. Effective engineering control. No reported injuries/illnesses.
Chemical: Acetone This chemical is a component of the vinyl cleaner used for cleaning plaque and other finished products. The solution is impregnated in a shop cloth and wiped on the surface of the plaque. Uses about 0.5 to 1 oz daily.	1	0-15 minutes, special occasions	USED: ENG: Floor fans for dilution ventilation. PPE: Rubber gloves, safety glasses, dust mask ADM: PPE Training, HAZ COM Training	Acceptable. Amount used and duration of process minimizes the exposure potential. The dust mask being used is not effective for organic vapors, and Appendix D of 29 CFR 1910.134 was not made available for personnel who use the dust mask voluntarily.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Chemical: Isocyanates</p> <p>Applying polyurethane paint finish on wooden plaques.</p> <p>The material is applied by brush.</p>	1	15-30 minutes/monthly	<p>USED:</p> <p>ENG: Floor fans are used for dilution ventilation.</p> <p>PPE: Rubber gloves, safety glasses.</p> <p>ADM: Hazard Communication Training, PPE Training</p>	<p>Acceptable. Amount used, PPE, duration of process and method of application minimizes the exposure potential.</p>
<p>Chemical: Diethylene Glycol Monoethyl Ether, Ethanol, Isopropanol (Components of leather dye)</p> <p>Applying dye to imprinted letters on wooden plaque.</p> <p>The material is applied by brush.</p>	4	0-15 minutes, monthly	<p>USED:</p> <p>ENG: Floor fans are used for dilution ventilation.</p> <p>PPE: Rubber gloves, safety glasses.</p> <p>ADM: HAZ COM Training, PPE Training</p>	<p>Acceptable. Amount used, PPE, duration of process and method of application minimizes exposure potential.</p>
<p>Chemical: Diethylene Glycol, Glycerine, Polyester (paper), CO</p> <p>Personnel print pictures using a sublijet printer and sublimation paper. Pictures are adhered to mugs by baking at 420°F in a toaster oven in the shop's kitchen.</p>	2	6-8 hours/day	<p>USED:</p> <p>ENG: Ink Cartridges are self-contained.</p> <p>ADM: HAZ COM Training</p>	<p>Uncertain: No reports of injuries/illnesses. Mugs are baked, potential for exposure to exposure to thermal decomposition of polyester.</p> <p>Carbon monoxide monitoring with a direct reading instrument is recommended to verify/document stressor levels. Please notify Industrial Hygiene when seasonal maintenance is scheduled so the heaviest workload can be monitored.</p>
<p>Chemical: Wood Dust</p> <p>Personnel may need to sand plaques before finishing them with polyurethane. Personnel perform this task rarely, and use a dust mask/safety glasses for this task.</p>	1	0-15 minutes/monthly	<p>USED:</p> <p>PPE: Safety glasses, dust mask.</p> <p>ADM: HAZ COM Training, PPE Training</p>	<p>Acceptable: PPE, duration of process and no reports of injury/illnesses.</p> <p>The dust mask being used is an adequate control, but Appendix D of 29 CFR 1910.134 was not made available for personnel who use the dust mask voluntarily.</p>
<p>Ergonomics: Static posture, work-rate/repetition, forceful exertion, and dynamic body posture.</p> <p>Engraving, plaque finishing, designing banners on computers, using a press to make t-shirts, and attending the counter help. Dollies to move items, and 40 pounds is the most they may lift. Administrative functions are performed for 1-2 hours a day.</p>	8	6-8hours/day	<p>USED:</p> <p>ADM: Ergonomic training and work/rest cycle, job rotation, and 2-man lift.</p> <p>ENG: Dollies, a cart, anti-fatigue mats.</p>	<p>Acceptable. No cumulative injury reported this survey.</p> <p>Ensure workers know who to report ergonomic issues to for resolution.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 02 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 6377
COMMAND: MCCS	TOTAL PERSONNEL: 59 GS: 0 CONTR: 0
BUILDING NUMBER: 504	MALE NAFLI: 1 GS: 0 CONTR: 0
SHOP NAME: MCAS MCSS MCRD CHILD DEVELOPMENT CENTER	FEMALE NAFLI: 58 GS 0 CONTR: 0
SITE SUPERVISOR: VICKI MARTINEZ	IH TYPE/DATE: FOUR-YEAR DOEHRS CAT 3 (RUC M02030026)

Description of Operations/Tasks: Personnel provide safe care (includes guided play and learning activities) to children of active Marine Corps, Marine Corps and DoD civilian personnel ages 6 weeks to 5 years old, Monday-Friday 0500-1900. The CDC is nationally accredited through the National Association for the Education of Young Children (NAEYC) and is certified annually by DoD. Staff includes the director, front desk staff, caregivers, a custodian, and 2 kitchen staff. Two meals and late evening snack are prepared and served daily. Kitchen equipment consists of stove, convection oven and steamer.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Ergonomics. Contact Stress, Awkward Posture</p> <p>Providing clerical support for the business operations.</p> <p>During keyboarding and data manipulations may cause some pressures on parts of the body (fingers, palms, wrist, forearms, elbows and knees) when pressed against hard or sharp surfaces.</p>	4	2-4 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle and ergonomics training, adjustable chairs</p>	<p>Acceptable. No reported cumulative trauma injury as of this survey period.</p> <p>Any ergonomic concern should be directed to the supervisor.</p>
<p>Ergonomics. Physical Exertion, Awkward Posture</p> <p>Lifting and bending during care giving.</p>	56	6-8 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle and Ergonomics training, Proper lifting technique.</p>	<p>Acceptable. No reported cumulative trauma injury as of this survey period.</p>
<p>Ergonomics. Static Posture</p> <p>Kitchen staff spend a lot of time standing while preparing food and cleaning dishes, pans, etc.</p>	2	6-8 hours/day	<p>USED:</p> <p>ENG: rubber mats near dishwasher</p> <p>ADM: Task variability, ergonomics training</p>	<p>Acceptable. Based on controls in place. No reported cumulative trauma injury.</p>
<p>Physical. Noise</p> <p>A noise survey could not be located for the kitchen. It is unknown if the equipment and scullery area are noise hazardous during operation.</p>	2	2-4 hours/day	<p>USED:</p> <p>None</p>	<p>Uncertain. A sound level survey is recommended to verify potential noise hazardous equipment. No equipment was operating at the time of survey.</p>
<p>Biological: Blood Borne Pathogen from Blood and Body fluids.</p> <p>Care giving, diaper changing and handling of blood and body fluids.</p>	56	6-8 hours/day	<p>USED:</p> <p>ADM: Universal precautions, Infection Control Training, SOP PPE: Nitrile gloves</p>	<p>Acceptable. Procedural infection control technique and up to date training. Personnel are entered in the Blood borne Pathogen and Child Care Worker Programs.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Chemical: Ethoxylated Alcohols (Grease-B-Gone), Sodium hypochlorite (Austin bleach), Ethanol (Oasis 146 Multi-Quat Sanitizer)</p> <p>Kitchen staff use bleach and other cleaners that are dilute</p> <p>Other Ecolab products (Apex detergent and rinse additive) are autofed and pose no contact hazard to staff.</p>	2	1-2 hours/day	<p>USED:</p> <p>ENG: DV, bottle eyewash</p> <p>PPE: chemical goggles available, vinyl gloves for incidental contact</p> <p>ADM: Hazard communication training</p>	<p>Acceptable. Low chemical concentration, short duration and available PPE minimize exposure potential.</p>
<p>Chemical: Sodium hydroxide (Ecolab Grease Strip Plus), Sodium hydroxide (Ecolab Pur-osol) oven/grill cleaner</p>	2	30-60 minutes/special occasion	<p>USED:</p> <p>ENG: DV, bottle eyewash</p> <p>PPE: chemical goggles available, vinyl gloves for incidental contact</p> <p>ADM: Hazard communication training</p>	<p>Acceptable. Low chemical concentration, short duration and available PPE minimize exposure potential.</p>
<p>Chemical: Ethanolamine (Bright Speed)</p> <p>Bright Speed is used to clean floors.</p>	1	1-2 hours/daily	<p>USED:</p> <p>ENG: DV</p> <p>ADM: Hazard Communication training, available nitrile gloves, chemical goggles</p>	<p>Acceptable. Based on low chemical concentration and Based on controls in place.</p>
<p>Chemical: Bleach, Laundry Detergents</p> <p>Laundering soiled clothes and placement rugs.</p>	56	10-15 minutes/day	<p>USED:</p> <p>ADM: nitrile gloves for handling soiled items, SOP</p>	<p>Acceptable. Use of pre-packaged detergent.</p>
<p>Mixing bleach based solutions for cleaning table top surfaces and disinfecting toys.</p>	55	10-15 minutes/day	<p>ENG: DV, bottle eyewash</p> <p>PPE: nitrile gloves (incidental contact), goggles and waterproof aprons</p> <p>ADM: SOP, Hazard Communication training</p>	<p>Acceptable. Low chemical concentration, short duration and use of PPE use minimize exposure potential.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

Cleaning of table top surfaces and disinfecting toys.	55	30-60 minutes/day	ENG: DV PPE: nitrile gloves (incidental contact) ADM: SOP, Hazard Communication training	Acceptable. Low chemical concentration, short duration and use of PPE use minimize exposure potential.
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1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS
 PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION
 ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.
 UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD
 REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD
 CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 03 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 1669
COMMAND: MCCS	TOTAL PERSONNEL: 12 GS: 0 CONTR: 0
BUILDING NUMBER: 291	MALE NAFLI: 1 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS MCRD YOUTH CENTER	FEMALE NAFLI: 11 GS: 0 CONTR: 0
SITE SUPERVISOR: PAULA MADRID	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: Personnel provide safe care to children of active Marine Corps, Navy, and DoD civilian employees. The facility is open Monday-Friday from 0500-1900 for children ages 5-12. During the school year children are transported from the Youth Center to school and after school back to the Youth Center (by bus). The School Age Care program is nationally accredited. Staff consists of a clerk, director, assistant director, a custodian and program associates. Food prepared in the CDC kitchen is transported via cart and is served by staff.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Ergonomics. Contact Stress, Awkward Posture</p> <p>Providing clerical support for the business operations.</p> <p>During keyboarding and data manipulations may cause some pressures on parts of the body (fingers, palms, wrist, forearms, elbows and knees) when pressed against hard or sharp surfaces.</p>	3	2-4 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle and ergonomics training, adjustable chairs</p>	<p>Acceptable. No reported cumulative trauma injury as of this survey period.</p> <p>Any ergonomic concern should be directed to the supervisor.</p>
<p>Ergonomics: Physical Exertion, Awkward Posture</p> <p>Lifting and bending in awkward position during youth activity interaction.</p>	8	6-8 hours/day	<p>USED:</p> <p>ADM: Ergonomics training</p>	<p>Acceptable. Based on controls in place.</p> <p>Use good lifting technique by keeping the load close to the body. Replace lifting with pushing or pulling if possible. Use teams when handling bulky or difficult work task and enforce two person lift as necessary.</p>
<p>Moving food cart to and from CDC</p>	8	30-60 minutes/day	<p>ENG: push cart</p> <p>ADM: Ergonomics training</p>	<p>Acceptable. Based on controls in place.</p>
<p>Biological: Blood Borne Pathogen</p> <p>Physical interaction during recreational and developmental activities with possible exposure to blood and body fluids.</p>	12	6-8 hours/day	<p>USED:</p> <p>ADM: Universal blood bore pathogen precautions, Infection Control Training</p> <p>PPE: Nitrile gloves</p>	<p>Acceptable. Procedural infection control technique and current training are effective.</p> <p>Personnel are enrolled in the Blood Borne Pathogen and Child Care Worker Programs.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
Chemical: Bleach Mixing bleach based cleaning solutions for spraying table top surfaces and disinfecting toys. Diluted bleach solution or Lysol wipes (Ethyl alcohol, quaternary ammonium compounds)	8 12	10-15 minutes/day. 30-60 minutes/day	USED: ENG: DV, eyewash PPE: vinyl gloves, goggles ADM: HAZCOM training, SOP USED: PPE: nitrile gloves, available ADM: HAZCOM training	Acceptable. Low chemical concentration, duration of use and method of application are effective in minimizing exposure potential.
Chemical: Ethoxylated Alcohol (Zep Neutral Floor Cleaner) Custodian mops floors daily.	1	2-4 hours/day	USED: ADM: HAZCOM training PPE: Nitrile gloves and goggle are available if needed	Acceptable. Low chemical concentration, and method of application are effective in minimizing exposure potential.
Chemical: Ecolab QC 93 Ultra Concentrated Acid Bathroom Cleaner. Ingredients are not listed in DOEHS selection list. Used for cleaning restrooms. Product is diluted with water and the only ingredient listed at dilution is fragrance.	1	30-60 minutes/day	USED: ADM: HAZCOM training	Acceptable. Low chemical concentration, and method of application are effective in minimizing exposure potential.

1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS

PPE - PERSONAL PROTECTIVE EQUIPMENT

ISO - ISOLATION

DV - DILUTION VENTILATION

ENG - ENGINEERING CONTROLS

LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.

UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD

REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD

CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Chemical: Ethanol, Acetic Acid and Quaternary Ammonium compounds (20 Neutral Cleaner and Disinfectant)</p> <p>Replenishing of disinfectant from dispensing stations for sanitizing fitness equipment. Equipment is cleaned approximately one time per shift, across all shifts.</p> <p>Patrons are encouraged to wipe equipment after use with Gym wipes.</p>	17	2-4 hours/daily	<p>USED:</p> <p>ENG: DV</p> <p>PPE: Nitrile gloves</p> <p>RECOMMENDED:</p> <p>HAZCOM training</p>	Acceptable. Low chemical concentration of solutions and short duration of use minimizes exposure potential.
<p>Chemical: Stoddard solvent, petroleum distillates (Hilco Lube)</p> <p>Used for lubricating gym equipment as necessary</p>	17	30-60 minutes/weekly	<p>USED:</p> <p>ENG: DV</p> <p>PPE: nitrile gloves, chemical goggles as necessary</p> <p>RECOMMENDED:</p> <p>HAZCOM training</p>	Acceptable. Low chemical concentration and short duration of use minimize exposure potential.
<p>Chemical: Phosphoric acid, octanoic acid (Ecolab 65 Disinfecting Heavy Duty Acid Bathroom Cleaner)</p> <p>Used for extra cleaning of restrooms as needed. Product is diluted per manufacturer directions.</p>	17	30-60 minutes/ Special occasions	<p>USED:</p> <p>ENG: DV</p> <p>PPE: nitrile gloves, chemical goggles as needed</p> <p>RECOMMENDED:</p> <p>HAZCOM training</p>	Acceptable. Minimal use, short duration and adequate controls.
<p>Biological: Bloodborne Pathogens</p> <p>Staff may come in contact with blood and body fluids while cleaning or in the event of a patron injury.</p>	17	30-60 minutes/ special occasions	<p>USED:</p> <p>ENG: spill kit</p> <p>ADM: BBP SOP, BBP training</p>	Acceptable. Based on controls in place.
<p>Ergonomics: Awkward Posture, Static Posture, Contact Stress</p> <p>Sitting doing administrative tasks such as computer work and checking in patrons at the front desk.</p>	17	1-2 hours/daily	<p>USED:</p> <p>ENG: Adjustable chairs</p> <p>ADM: task variety, ergonomics training</p>	Acceptable. Based on controls in place.
<p>Ergonomics: Awkward Posture, Physical Exertion</p> <p>Staff members offer physical training to patrons, which may involve heavy exertion during classes.</p> <p>Cleaning of equipment may require physical exertion and moving in awkward postures.</p>	17	2-4 hours/daily	<p>USED:</p> <p>ADM: task variety, ergonomics training</p>	Acceptable. Based on controls in place.

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PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION

ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.

UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD

REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD

CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 405 SHOP NAME: MCAS MCCS MCRD FACILITY MAINTENANCE SHOP SITE SUPERVISOR: SAM MARSHALL		DATE: 15 AUG 2016 PHONE: 228- 6377 525-1650 TOTAL PERSONNEL: 10 GS: 0 CONTR: 0 MALE NAFI: 4 GS: 5 CONTR: 0 FEMALE NAFI: 1 GS 0 CONTR: 0 IH TYPE/DATE: TWO YEAR DOEHRS CAT 2 (RUC M02030026)		
Description of Operations/Tasks: Personnel maintain and repair MCCS properties, such as general carpentry, HVAC repair, small demolition projects and parking lot stall painting. Currently staff consists of: a supervisor, a receptionist, an electrician, a plumber, a carpenter, an A/C repairman, and 4 Maintenance Mechanics. Personnel bring their own hand tools.				
HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise Carpentry shop operation and small demolition projects. Also, personnel may need to use saws for repair work in the field.	7	1-2 hours day, intermittently on as needed basis	USED: PPE: Single hearing protection (EAR Classic), Safety glasses	Uncertain. Limited duration and regularity minimizes exposure potential. Last dosimetry was done in 2008, re-monitoring is recommended. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Physical: Respirable Dust/Wood Dust. Carpentry shop operation, small demolition projects and rerouting pipes/electrical conduit. Materials are tested for asbestos prior to renovation project. Surveys of the table saw system indicate the system is not working to recommended criteria. Please refer to the Summary of Recent Sampling Results 2016 section of this report for more detail.	7	30-60 minutes/day	USED: ENG: LV for Table Saw PPE: N95 Mask ADM: PPE training	Acceptable. Limited duration and regularity of tasks minimize exposure potential. Personnel have not been provided Appendix D of 29 CFR 1910.134.
Chemical: Plumbing-Muriatic and Sulfuric Acid. For unclogging sanitary drains and removing stains in urinals and toilets. Poured from a single service container (32 oz plastic container).	1	30-60 minutes/day	USED:: DV: Natural Ventilation PPE: Latex gloves, Safety glasses ADM: Personal Hygiene; PPE training, HAZ COM Training	Acceptable. PPE, limited quantity and duration of tasks minimize exposure potential. The safety representative was currently updating the chemical list. Not all SDSs were available for all the products that were being used.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Chemical: Toluene, Xylene, Methyl Ethyl Ketone.</p> <p>Applying latex and enamel paint on exterior and interior walls.</p> <p>Uses 2-4 gallons depending on surface area.</p> <p>Large surface area and extensive paint jobs are contracted out.</p>	<p align="center">4</p>	<p>6-8hours/ weekly</p>	<p>USED:</p> <p>ENG: DV: Natural Ventilation</p> <p>PPE: Latex, Safety glasses</p> <p>ADM: Personal Hygiene, PPE training, HAZ COM Training</p>	<p>Acceptable. PPE, limited quantity and duration of tasks minimize exposure potential.</p> <p><u>Toluene and Xylene are listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p> <p>The safety representative was currently updating the chemical list. Not all SDSs were available for all the products that were being used.</p>
<p>Chemical: Air Conditioning Repair-134A refrigerant; propane/isobutene/n-butane, naphthenic oil, heptane,</p> <p>One Air Conditioning Repairman performs basic repair on HVAC systems for MCRD. Refrigerant recovery system is utilized, leather gloves, and safety glasses.</p>	<p align="center">1</p>	<p>2-4 hours/day</p>	<p>USED:</p> <p>ENG: Refrigerant recovery system</p> <p>PPE: Safety glasses, Leather gloves</p> <p>ADM: PPE training, HAZ COM Training</p>	<p>Uncertain: The A/C repairman was not working the day of the survey.</p> <p>The safety representative was currently updating the chemical list. Not all SDSs were available for all the products that were being used.</p>
<p>Chemical: Cleaning office/bathroom-Clorox Disinfecting Toilet Wand: D-Glucopyranose and Glycolic acid. Lysol All Purpose Cleaner Lemon Breeze: Quaternary ammonium compounds Hydrogen Chloride, Alcohols, C10-14, ethoxylated</p> <p>The receptionist cleans the bathroom and the office one time a week. She uses toilet bowl cleaner, Pinesol, and all purpose cleaner, and just uses gloves. She also vacuums for a few minutes as needed.</p>	<p align="center">1</p>	<p>15-30 minutes, Weekly</p>	<p>USED/REQUIRED:</p> <p>PPE: Latex Gloves</p> <p>ADM: PPE training, HAZ COM Training</p> <p>ENG: Eyewash</p> <p>REQUIRED: Safety Glasses</p>	<p>Acceptable. PPE, limited quantity and duration of tasks minimize exposure potential.</p> <p>Personnel do not use safety glasses for this task.</p> <p>PPE retraining is recommended.</p> <p>The safety representative was currently updating the chemical list. Not all SDSs were available for all the products that were being used.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Physical: Ergonomics; Prolonged standing, work-rate/repetition, segmental hand/arm vibration, forceful exertion; dynamic posture</p> <p>The majority of work is labor intensive, but the manager and receptionist solely perform administrative work.</p> <p>The office workstation has ergonomic chairs and adjustable monitors, and the manager and receptionist spend the majority of their time performing administrative tasks.</p> <p>Forceful exertion is rarely performed on a limited basis during daily functions.</p> <p>Personnel receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	<p>2</p> <p>8</p>	<p>6-8 hours /day for Administration</p> <p>6-8 hours/day for the Electrician, Plumber, Carpenter, A/C repairman, and the 4 Maintenance Mechanics</p>	<p>USED:</p> <p>ADM: Training, Task Variety, Breaks</p> <p>ADM: Training, Task Variety, Breaks, Two-man lift</p> <p>ENG: Carts</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p> <p>Recommendation: anti-fatigue mats.</p>
<p>Physical: Heat Stress/Cold Stress</p> <p>Building 405's HVAC system is reported to be adequate.</p> <p>All personnel have exposure to heat stress and cold stress when going to buildings to perform repairs and while in the carpentry shop. However, they have access to areas with HVAC, take breaks, keep hydrated, and installation flag designations.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	<p>9</p> <p>1</p>	<p>Rare, prolonged exposure in the shop</p> <p>6-8 hours, weekly</p>	<p>USED:</p> <p>ADM-Hydration, Flags, Breaks</p> <p>ENG- Office HVAC</p>	<p>Acceptable. No injuries/illnesses have been reported.</p> <p>Heat/Cold stress training is recommended.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: MELODY HUBBS	DATE: 11AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228-1572/1599
COMMAND: MCCS	TOTAL PERSONNEL: 2 GS: 0 CONTR: 0
BUILDING NUMBER: 20	MALE NAFLI: 2 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS MCRD FLEET MAINTENANCE SHOP	FEMALE NAFLI: 0 GS: 0 CONTR: 0
SITE SUPERVISOR:	IH TYPE/DATE: TWO YEAR DOEHS CAT 2 (RUC M02030026)

Description of Operations/Tasks: Maintains the fleet of MCCS vehicles. Personnel conduct minor engine tune up, fluid checks, tire rotation and balancing and occasional assistance with brake work. No changes from previous survey.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Auto repair using pneumatic tools, grinders and tire changers and mounters.</p> <p>2012 Sound Level Measurements (Impact Noise) (Navy Occupational Exposure Level 104 dB(A) for impulse noise).</p> <p>IH12-0225 - 119.1 dB(A) Wheel Mount Tire Changer (Impact noise).</p>	2	6-8 hours/day	<p>USED/REQUIRED:</p> <p>None being employed.</p> <p>REQUIRED: Earplugs.</p>	<p>Unacceptable. Regularity, duration and frequency of task minimize exposure potential.</p> <p>Hand tools and powered equipment are owned by the auto mechanics.</p> <p>Recommendation: Perform dosimetry for personnel in this shop.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Chemical: POL: Gasoline and Lubricating oil.</p> <p>Fluid check and replacement.</p>	2	30 minutes/day	<p>USED:</p> <p>ENG: Dilution Ventilation</p> <p>PPE: Nitrile gloves and safety glasses</p> <p>ADM: HAZ COM Training</p>	<p>Acceptable. Limited material use and duration of exposure minimize exposure potential.</p> <p>Personnel bring their own gloves because they are not being provided. MCCS needs to provide appropriate gloves for the shop.</p> <p>Not all SDSs were available for products being used in this shop.</p>
<p>Chemical: Ethylene Glycol</p> <p>Coolant replenishment for fleet vehicles.</p>	2	20 minutes/day	<p>USED:</p> <p>ENG: Dilution Ventilation</p> <p>PPE: Nitrile gloves and safety glasses</p> <p>ADM: HAZ COM Training</p>	<p>Acceptable. Limited material use and duration of exposure minimize exposure potential.</p> <p>Personnel bring their own gloves because they are not being provided.</p> <p><u>Ethylene Glycol is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Respirable Dust (Possible Asbestos)</p> <p>Brake jobs.</p> <p>Asbestos containing materials for brakes is not used on government vehicles.</p>	2	30 minutes/ Special occasions	<p>USED:</p> <p>ENG: Wet Method (Brake Parts Washer)</p> <p>PPE: N95 Mask 3M NIOSH approved</p> <p>ADM: HAZ COM Training</p>	<p>Acceptable. Proper procedures and regularity of tasks minimize exposure potential.</p> <p>NOTE: Appendix D of 29 CFR 1910.134 needs to be provided to personnel.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

Ergonomics: Back Injury/forceful exertion, Dynamic Posture/work-rate/repetition/segmental hand-arm vibration.	2	6-8 hours/day	USED: ADM: Proper Lifting technique, Ergonomics Training and Team Lifting as needed.	Acceptable. Proper procedures and regularity of tasks minimize exposure potential. No known injury during this period.
Occasional forceful exertion during tire removal and scheduled tire rotation.				

1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS
 PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION
 ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.
 UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD
 REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD
 CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: SHOP NAME: MCAS MCCS MCRD Golf Course MCRD GOLF COURSE/PEST CONTROL SITE SUPERVISOR: RUSS HADWAY	DATE: 13 AUG 2016 PHONE: 228- 1703 TOTAL PERSONNEL: 8 GS: 0 CONTR: 0 MALE NAFLI: 8 GS: 0 CONTR: 0 FEMALE NAFLI: 0 GS: 0 CONTR: 0 IH TYPE/DATE: TWO YEAR DOEHRS CAT 2 (RUC M02030026)
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Description of Operations/Tasks: Personnel are responsible for repair and maintenance of the golf links and provide maintenance to equipment. Applies fertilizers, pesticide and herbicide for pest and foliage control. Currently there are 8 workers in this shop, which are all not full-time: 1 Superintendent, 1 Assistant Superintendent, 1 mechanic, 2 tractor operators, and 3 laborers.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Operation and maintenance of lawn equipment. Heavy equipment tractors are used for large area grass cutting.</p> <p>Also, the mechanic performs maintenance on equipment, and sharpens blades using the Anglemaster 4000; he may also weld a couple of times a year. The mechanic also has a drill press, table top grinder, table saw, and a welder that are infrequently used.</p> <p>Historical noise dosimetry data is above the Marine Corps Occupational Exposure Limit.</p>	6	4-6 hours/day	<p>USED:</p> <p>PPE: Single hearing protection, safety glasses</p>	<p>Unacceptable. Historical noise dosimetry results are above the 85 dBA MCOEL.</p> <p>Personnel have not been receiving Audiograms, did not have records of Hearing Conservation Training, and did not have a site specific Hearing Conservation Program available. No labels indicating noise hazard on equipment.</p> <p>Additional equipment has been obtained since the 2014 that need sound level surveys: New Holland Tractor 6500 Work Master; Dakota 410 Top Dresser; and John Deer Front End Loader 400 X series.</p> <p>See Workplace Medical Surveillance Summary for surveillance physicals/certification.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Chemical: petroleum distillates, ethylene glycol</p> <p>The mechanic performs maintenance on equipment by adding or performing oil changes, antifreeze. Personnel utilize safety glasses and nitrile gloves for these tasks.</p>	1	6-8 hours/day	<p>USED:</p> <p>PPE: Safety glasses, Nitrile gloves, cotton overalls</p> <p>ADM: HAZ COM Training, PPE Training, No Smoking Sign</p>	<p>Acceptable. Based on controls in place.</p> <p>SDS list and book not up-to-date. Personnel utilize PPE and have had hazard communication/PPE training.</p> <p>Used oil drums were not properly labeled to reflect potential hazards. Cabinets were locked and the mechanic was not at work on the day of the survey, so all the chemicals being used were not made available. The eyewash in the shop was inoperable.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Chemical: Welding Carbon, Silicon, Manganese, Phosphorus, Sulfur, Copper, Molybdenum, and Iron.</p> <p>The mechanic tack welds twice a year for less than 15 minutes. Major repairs are not performed and new equipment is leased out. Personnel</p>	<p align="center">1</p>	<p>1-2 times/year, 0-15 minutes</p>	<p>USED:</p> <p>PPE: Leather Gloves, Welding helmet, cotton coveralls</p> <p>ADM: HAZ COM Training, PPE Training, Natural Dilution</p>	<p>Uncertain: No injuries or illnesses reported; no historical data available. Manganese has a ceiling of 5 mg/m3; air monitoring recommended.</p> <p>SDS list and book not up-to-date.</p> <p>The eyewash in the shop was inoperable.</p> <p>Welding helmet was not kept in a sanitary condition; could not read shade number.</p>
<p>Chemical: Organophosphates, silica.</p> <p>Turf and ornamental insecticide.</p> <p>Pesticide is applied as a maintenance and control for emerging pests during fall season.</p> <p>Broad spectrum pesticide application is contracted out.</p>	<p align="center">3</p>	<p>2-4 hours/day As needed</p>	<p>USED/REQUIRED:</p> <p>PPE: Tyvek Suit, Nitrile gloves, safety glasses.</p> <p>ADM: Procedural controls, Pesticide Application Certification, HAZ COM Training, PPE Training</p> <p>Required:</p> <p>Full-Face Respirator with Pesticide Filter</p>	<p>Uncertain. Spraying is conducted in a motorized vehicle with no protective enclosure for the worker.</p> <p>Personnel were not using respirators when applying pesticides. Personnel were not receiving physicals, and a site specific respiratory protection program was not available to personnel.</p> <p>Pest Controllers are DoD and SC State Certified.</p> <p>Recommend inclusion in the Respiratory Protection Program.</p> <p>Exposure monitoring by IH is also recommended.</p>
<p>Chemical: Fungicide/Silica.; Flutolanil, Quartz (Silica, Crystalline)</p> <p>Dry broadcast application of chemical for fungi infestation on golf greens.</p> <p>Silica is used as an application media for the fungicide.</p> <p>Full scale treatment is contracted out.</p>	<p align="center">3</p>	<p>2-4 hours/day As needed</p>	<p>USED/REQUIRED:</p> <p>PPE: Tyvek Suit, Nitrile gloves, safety glasses.</p> <p>ADM: Procedural controls, Hazard Communication Training, PPE Training</p> <p>Required:</p> <p>Full-Face Respirator with Pesticide Filter</p>	<p>Uncertain. This application is usually conducted during the winter season. Dry chemical treatment is for spot treatment on as needed basis.</p> <p>Personnel were not using respirators when applying pesticides. Personnel were not receiving physicals, and a site specific respiratory protection program was not available to personnel.</p> <p>See Workplace Medical Surveillance Summary.</p> <p>Exposure monitoring by IH is also recommended.</p> <p>Pest Controllers are DOD and SC State Certified.</p> <p><u>Silica is listed in NMCPHC-TM-OEM 6260.01C April 2010 as carcinogen.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Biological: Bacilli (Merge PowerBlend)</p> <p>Microorganism injection to the golf greens for foliar fertility.</p>	3	2-4 hours /day 2-3x a year	<p>USED:</p> <p>PPE: Tyvek Suit, Nitrile gloves, safety glasses.</p> <p>ADM: Procedural Controls, Hazard Communication Training, Hazard Communication Training, PPE Training</p>	<p>Acceptable. This is an application of naturally occurring and non-pathogenic, non-genetically altered microorganism beneficial to soil richness and disease management program.</p>
<p>Chemical: Herbicide</p> <p>Spraying for foliage control. 10 different types of herbicides are used frequently, which include constituents of:</p> <p>Tetrahydrofurfuryl Alcohol; Trinexapac-Ethyl; Simazine 2-chloro-4,6-bis(ethylamino)-s-triazine; Foramsulfuron; Solvent Naphtha (petroleum), heavy aromatic Metribuzin; Kaolin; bentazone-sodium; 2,4-D BEE Triclopyr BEE Kerosene, and 2-Ethylhexyl (4-chloro-2-methylphenoxy) acetate.</p>	3	2-4 hours/day As needed	<p>USED/REQUIRED:</p> <p>PPE: Tyvek Suit, Nitrile gloves, safety glasses.</p> <p>ADM: Procedural controls, Hazard Communication Training, PPE Training</p> <p>Required:</p> <p>Full-Face Respirator with Pesticide Filter</p>	<p>Uncertain. Personnel were not using respirators when applying herbicides. Personnel were not receiving physicals, and a site specific respiratory protection program was not available to personnel. Hazard Communication Program is not site specific. SDS list and book not up-to-date.</p> <p>See Workplace Medical Surveillance Summary.</p> <p>Exposure monitoring by IH is also recommended.</p> <p>Pest Controllers are DOD and SC State Certified.</p>
<p>Chemical: Fertilizers, urea, phosphates, magnesium sulfate, Ferrous sulfate Heptahydrate, calcium sulfate dehydrate, gypsum</p> <p>Personnel use fertilizer on the golf course each season and as needed. Full face respirators were available, but cartridges were not. Tyvek suits are used and nitrile gloves.</p>	3	2-4 hours/weekly As needed	<p>USED:</p> <p>PPE: Tyvek Suit, Nitrile gloves, safety glasses.</p> <p>ADM: Procedural controls</p> <p>ADM: Hazard Communication Training, PPE Training</p>	<p>Uncertain. Historical air monitoring data is not available. Personnel were not using respirators when applying fertilizers. Personnel were not receiving physicals, and a site specific respiratory protection program was not available to personnel. Hazard Communication Program is not site specific. SDS list and book not up-to-date.</p> <p>Exposure monitoring by IH is also recommended.</p> <p>See Workplace Medical Surveillance Summary.</p>
<p>Physical: Heat Stress Injury</p> <p>Golf Course maintenance during extreme weather condition.</p> <p>Heat stress training is conducted monthly during the summer season. Include in the training the topics such as recognizing the symptoms of heat injury, type, initial heat stress treatment and preventive measures.</p>	3	4-6 hours/day	<p>USED:</p> <p>ADM: Heat Stress Training, Hydration, Flags, rest breaks.</p> <p>ENG: Break room with HVAC</p>	<p>Acceptable: There is no reported incident of heat stress injury.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Ergonomics: Vibration/Hand-arm segmental vibration/dynamic posture; static posture</p> <p>Riding lawnmowers and weed whacker equipment. The superintendent and assistant superintendent perform administrative tasks daily for 2-3 hours a day. The mechanic also has exposure to all but static posture hazards.</p>	<p align="center">8</p>	<p align="center">4-6 hours/day</p>	<p>USED:</p> <p>PPE: None.</p> <p>RECOMMENDED:</p> <p>PPE: Full finger anti vibration gloves</p> <p>ADM: Ergonomic Training</p>	<p>Acceptable: There is no known complaint of cumulative injury during this survey.</p>
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1. USE THE FOLLOWING CONTROL CODES:

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INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 168 SHOP NAME: MCAS MCRD MCCS GROUNDS MAINTENANCE (MCX & LAUREL BAY ATHLETIC COURTS) SITE SUPERVISOR: SHEILA TRIMMER/TERRY HOLMES	DATE: 15 AUG 2016 PHONE: 228-1592 TOTAL PERSONNEL: 8 GS: 0 CONTR: 0 MALE NAFLI: 8 GS: 0 CONTR: 0 FEMALE NAFLI: 0 GS: 0 CONTR: 0 IH TYPE/DATE: TWO YEAR DOEHRs CAT 2 (RUC M02030026)
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Description of Operations/Tasks: Personnel are responsible for the upkeep of grounds around the MCX facilities and athletic fields and recreational areas including the trailer park. Operates mini tractors, self propelled lawnmowers, combustion driven trimmers and edger. Maintains a shop for routine maintenance of grounds equipment. The titles of personnel include: 4 tractor operators, athletics/grounds, work leader, sports attendant, and field and grounds. Recommendation for restroom facilities to be installed instead of port-a-johns. Shelia Trimmer works in another building and oversees many shops and is associated with another shop.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise Grounds and vegetation maintenance using power tools and gas powered equipment. Historical noise data shows 8-hour time-weighted exposures above the Marine Corps occupational exposure limit.	8	4-6 hours/day	USED: PPE: Ear plugs, steel toe shoes REQUIRED: PPE: safety glasses	Unacceptable. Noise dosimetry is above the MCOEL. Personnel have not been receiving Audiograms, did not have records of Hearing Conservation Training, and did not have a site specific Hearing Conservation Program available. Personnel also use their own safety glasses. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Chemical: Round-up application, Isopropylamine salt of glyphosate Personnel apply Round-up once a month for 4 hours. Lesco Spray Dye Indicator (non-hazardous) is used to display where Round-up is being sprayed.	8	1x a month, 2-4 hours	USED/REQUIRED: ADM: Hazard Communication Program, PPE Training REQUIRED: Rubber gloves, Chemical goggles	Unacceptable. Personnel do not use gloves when performing this task. There were several products no longer being used, and a bottle of turf grass coolant that was no adequately labeled. The SDS book/list needs to be updated.
Chemical: Spray marking/athletic field marking; Toluene, Xylene, Naphtha Solvent; particulate dust Soccer, baseball, and flag football fields are marked before games using either spray marking or athletic field marking; there are 8 fields that are marked by personnel.	8	2-4 hours, 2-3 times a week	USED: DV: Natural Ventilation REQUIRED: PPE: Safety glasses, nitrile gloves for incidental contact	Acceptable. Limited material used, task duration, and regularity of operations minimize exposure potential. Unacceptable. PPE has not been provided to personnel. There were several products no longer being used, and a bottle of turf grass coolant that was no adequately labeled. The SDS book/list needs to be updated.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Chemical: Gasoline, petroleum distillates, and ethylene glycol</p> <p>Equipment maintenance. There is one small engine mechanic on staff that performs maintenance on equipment on a monthly basis. He changes tires, greases all equipment, and changes oils and coolants. The mechanic primarily performs lawn maintenance duties.</p>	1	2-3 times a week, 4-6 hours	<p>USED/REQUIRED:</p> <p>DV: Natural Ventilation</p> <p>ENG: Eyewash station</p> <p>Required:</p> <p>PPE: Safety Glasses, Nitrile gloves</p>	<p>Unacceptable. Limited material used, task duration, however, PPE has not been provided to personnel.</p> <p>Eyewash is maintained weekly. There were several products no longer being used, and a bottle of turf grass coolant that was no adequately labeled.</p> <p>The SDS book/list needs to be updated.</p>
<p>Chemical: Cleaning restrooms, Sodium Hypochlorite, Sodium Hydroxide</p> <p>Personnel use bleach to clean bathrooms once a week for 30 minutes on the ball fields and use vinyl gloves for this task.</p>	8	30 minutes, once a week	<p>USED/REQUIRED:</p> <p>PPE: Vinyl gloves</p> <p>ADM: Hazard Communication Program, PPE Training</p> <p>Required:</p> <p>PPE: Safety Glasses, Nitrile gloves</p>	<p>Unacceptable. Personnel do not use safety glasses when cleaning bathrooms.</p> <p>SDSs were not available for all chemicals being used.</p>
<p>Ergonomics: Vibration/Work-Rate Repetition/Hand-Arm Vibration/Dynamic Posture</p> <p>Using hands push lawnmowers and weed whacker equipment.</p>	8	4-6 hours/day	<p>USED:</p> <p>PPE: Safety glasses.</p> <p>ADM: Rest Breaks</p> <p>RECOMMENDED:</p> <p>Full finger anti vibration gloves</p>	<p>Acceptable: There is no known complaint of cumulative injury during this survey.</p> <p>Ergonomic training is recommended.</p>
<p>Physical: Heat Stress Injury</p> <p>Grounds maintenance on MCCS facilities.</p>	8	4-6 hours/day	<p>USED:</p> <p>ADM: Heat Stress Training, Hydration, Rest Breaks</p> <p>ENG: HVAC in breakroom</p>	<p>Acceptable: There is no reported incident of heat stress injury.</p> <p>Heat stress training is conducted monthly during the summer season. Include in the training topics such as recognizing the symptoms of heat injury, type, initial heat stress treatment and preventive measures.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 12 SHOP NAME: MCAS MCCS MCRD Skills Education Center MCRD SKILLS EDUCATION CENTER (AUTO HOBBY SHOP) SITE SUPERVISOR: DANNY MILLS	DATE: 14 AUG 2016 PHONE: 228- 1572 TOTAL PERSONNEL: 3 GS: 0 CONTR: 0 MALE NAFI: 3 GS: 0 CONTR: 0 FEMALE NAFI: 0 GS 0 CONTR: 0 IH TYPE/DATE: TWO YEAR DOEHS CAT 2 (RUC M02030026)
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Description of Operations/Tasks: Personnel assist patrons in self help auto repair and maintenance such as minor engine tune up, fluid checks, tire rotation and balancing and occasional brake work. Minor welding is performed by patrons on a case by case basis. One worker is out on leave due to a worker's compensation claim.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise. Operations in maintenance bay. Power tools that generate noise above 85 dBA were occasionally used during maintenance by vehicle owners.	3	6-8 hours/day intermittently	USED: PPE: <u>Single Hearing Protection</u> Only ear plugs were available for personnel. Hearing protection device is available upon request of customer.	Unacceptable. Historical noise dosimetry data was above the exposure limit. Personnel are not using hearing protection. One worker uses hearing aids and simply turns them down. Personnel have not been receiving Audiograms, did not have records of Hearing Conservation Training, and did not have a site specific Hearing Conservation Program available. Personnel assist patrons during car maintenance and aware of noise hazard. See workshop medical surveillance summary for periodic medical surveillance exam and certification. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Chemical: Carbon Monoxide. Stationary engine testing. The ventilation system was evaluated on 7/11/2016. The system is working adequately. For details of the evaluation please refer to the Summary of Recent Sampling Results section of the report.	3	6-8 hours/day intermittently	USED: ENG: LEV(Tail pipe exhaust ventilation)	Acceptable. Engineering controls to dilute and evacuate toxic gases and fumes were adequate. A high velocity floor fan is used for dilution ventilation during engine testing. <u>Carbon Monoxide is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Chemical: Perchloroethylene (105 Solvents Recycled by Safety Kleen)</p> <p>Patrons and personnel use parts cleaner weekly for 3-5 minutes, which is changed out by Safety Kleen. The face shield was not kept in a sanitary condition.</p>	2	0-15 minutes, Weekly	<p>USED:</p> <p>ADM: DV, Hazard Communication Training, PPE Training, Warning signs</p> <p>PPE: Neoprene Gloves, Faceshield</p> <p>ENG: Eyewash</p>	<p>Acceptable. Limited quantity used, PPE and duration of tasks minimize exposure potential.</p> <p>Consider replacing this product with as safer substitute.</p>
<p>POL: Gasoline, Ethylene glycol, Lubricating oil.</p> <p>Fluid check and replacement</p>	2	30-60 minutes/day	<p>USED:</p> <p>ENG: DV, Eyewash</p> <p>PPE: Nitrile gloves and safety glasses, available</p> <p>ADM: Hazard communication training, PPE Training</p>	<p>Unacceptable. Limited quantity used, PPE and duration of tasks minimize exposure potential.</p> <p>However, the technician did not wear safety glasses while working in the bays underneath a car. Personnel bring in their own gloves because they are not provided.</p>
<p>Physical: Respirable Dust (Possible Asbestos)</p> <p>Brake work. Patrons usually perform brake work. Shop personnel provide technical assistance as needed.</p>	2	30-60 minutes/special occasions	<p>USED:</p> <p>ADM: Wet Method (Brake Parts Washer).</p> <p>PPE: NIOSH approved N95 Mask is available upon request.</p>	<p>Acceptable. Proper procedures and irregularity of brake works minimize exposure potential.</p> <p>Personnel have not been provided Appendix D of 29 CFR 1910.134.</p>
<p>Ergonomics: Dynamic Posture/Forceful Exertion/Work-rate/repetition/Hand-Arm Vibration</p> <p>Accessing hard to reach area when working underneath a vehicle/using hand tools and lifting parts.</p>	2	30-60 minutes/day as needed	<p>USED/REQUIRED:</p> <p>ADM: Work/Rest Cycle, 2-man lift,</p> <p>ENG: Lift assist devices</p> <p>REQUIRED:</p> <p>Ergonomics training</p>	<p>Uncertain. Proper procedures and irregularity of mechanical works minimize exposure potential.</p> <p>Personnel stated they had not had Ergonomics Training.</p>

1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS
 PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION
 ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.
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 SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD
 REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD
 CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: LINDA BYRNES	DATE: 04 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 1551
COMMAND: MCCS	TOTAL PERSONNEL: 4 GS: 0 CONTR: 0
BUILDING NUMBER: 203	MALE NAFLI: 2 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS MCRD BOWLING ALLEY	FEMALE NAFLI: 2 GS: 0 CONTR: 0
SITE SUPERVISOR: CHRISTINE WILDENTHALER	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: The bowling center has 12 lanes for patron recreation to include some league bowling. Hours of operation: Wednesday 1600-2100; Thursday 1100-2100; Friday 1600-2300; Saturday 1300-2300; and Sunday 1300-1800. Personnel maintain the lanes and equipment and conduct sales and administrative functions. All food and drink available for sale are pre-packaged.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Occasional mechanical repair and trouble shooting of pinsetter mechanism while all lanes are active. Various noise hazardous equipment is used during preventive maintenance.</p> <p>2012 historical sound level measurements were above the (Occupational Exposure Level - 85 dB(A), however noise dosimetry conducted in 2015 and 2016 were below the 85 dB(A) 8-hour time-weighted average. Refer to the Summary of Recent Sampling Results section of this report.</p>	2	1-2 hours/day	<p>USED:</p> <p>3M classic earplugs (NRR 29 dB) or Moldex M2 earmuffs (NRR 26 dB)</p>	<p>Acceptable. Based on limited duration of exposure when trouble shooting malfunctions and noise dosimetry data collected.</p> <p>Most of the time the mechanic is in the front desk area for counter help. The mechanic enters the machinery area only when there is malfunction in the pin setting frame assembly or bowling ball return mechanism.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p> <p>Ensure mechanics continue to receive hearing conservation training.</p>
<p>Chemical: Lubricants- Petroleum Distillates (WD 40), Oil/lard (AMF Gear Lube), oils, grease</p> <p>General use for lubricating metal and plastic moving mechanism during routine mechanical maintenance.</p>	2	0-15 minutes/ special occasions	<p>USED:</p> <p>ENG: DV PPE: safety glasses ADM: HAZCOM training</p>	<p>Acceptable. Short duration of use, PPE and limited regularity of application minimize exposure potential.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

Chemical: Lane Maintenance				
AMF Approach Spotter (naphtha, xylene) (aerosol can)	2	0-15 minutes/ special occasions	USED: ENG: DV ADM: HAZCOM training	Acceptable. Short duration and infrequent use of product. <u>Xylene is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Brunswick Dry Slide (talc, starch)	2	0-15 minutes/ special occasions	USED: ENG: DV ADM: HAZCOM training	Acceptable. Short duration and infrequent use of product.
Brunswick Lane Cleaner (ethylene glycol monobutyl ether, pentasodium triphosphate)	2	1-2 hours/ 2-3 times/week	USED: ENG: DV PPE: safety glasses, nitrile gloves if needed while filling lane machine ADM: HAZCOM training	Acceptable. Short duration and infrequent handling of product. Lane machine automatically applies lane cleaner and conditioner.
AMF Lane Conditioner (mineral oil, isopropyl alcohol)	2	1-2 hours/ 2-3 times/week	USED: ENG: DV PPE: safety glasses, nitrile gloves if needed while filling lane machine ADM: HAZCOM training	Acceptable. Short duration and infrequent handling of product. Lane machine automatically applies lane cleaner and conditioner.
Cleaning Supplies: Bleach based solutions, GOJO, Glass cleaners, and Furniture polish. Cleaning bathroom, surface furniture polish and general housekeeping. Cleaning solutions are in labeled spray able containers.	4	30-60 minutes/day	USED: ENG: DV: PPE: Nitrile gloves for incidental contact REQUIRED: ADM: HAZCOM training	Acceptable. Low chemical concentration, PPE and short duration of use minimize exposure potential. Ensure all staff receive HAZCOM training.

1. USE THE FOLLOWING CONTROL CODES:

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2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
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INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: WILLIAM JOHNSON INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 283 SHOP NAME: MCAS MCCS MCRD LIBRARY SITE SUPERVISOR: ROSE KRAUSE	DATE: 23 SEP 2016 PHONE: 228- 7682 TOTAL PERSONNEL: 6 GS: 0 CONTR: 0 MALE NAFLI: 0 GS: 0 CONTR: 0 FEMALE NAFLI: 6 GS 0 CONTR: 0 IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)
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Description of Operations/Tasks: Personnel provide library and administrative support services to patrons, including: children's story time; access to computers, printers, scanners and fax machines; wide variety of books, eBooks, CDs, and DVDs for checkout. The library has varying hours Monday-Friday and Sunday. Staff do basic housekeeping using consumer products approximately 1 hour/day. While 2 employees normally staff this facility, there are 4 "floaters" who go between MCRD and MCAS libraries.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Ergonomics. Contact Stress, Awkward Posture</p> <p>Providing clerical support for the business operations. Keyboarding and data manipulations may cause some pressures on parts of the body (fingers, palms, wrist, forearms, elbows and knees) when pressed against hard or sharp surfaces.</p> <p>Other tasks that offer variability include make photo copies, making phone calls, and using the fax machine.</p> <p>Additionally, chair arms are not adjustable, nor is workstation height.</p>	10	2-4 hours/day	<p>USED:</p> <p>ADM: Rest/work cycle, work task variability</p> <p>RECOMMENDED:</p> <p>ENG: Adjustability of work surface and chairs. Foot rests to reduce pressure behind knees and reduce strain on the lower back. ADM: Ergonomics training</p>	<p>Acceptable. Based on controls in place and no known injuries.</p> <p>During the time of the survey, concerns were brought up about the uncomfortable workstation set up that was causing awkward postures and contact stress.</p> <p>Any ergonomic concern should be directed to the supervisor who in turn should contact the Depot Safety Ergonomics Program Manager for assistance.</p> <p>Additionally, as furniture is replaced, select chairs and workstations with adjustable features.</p>
<p>Ergonomics. Physical Exertion, Awkward Posture</p> <p>Staff reshelve books, CDs, DVDs</p>	10	1 hour/day	<p>USED:</p> <p>ENG: carts</p> <p>ADM: Task variability</p> <p>RECOMMENDED:</p> <p>Ergonomics training</p>	<p>Acceptable. Based on controls in place and no known injuries.</p>

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INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

RECORDED BY: MELODY HUBBS	DATE: 08 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 7965
COMMAND: MCCS	TOTAL PERSONNEL: 15 GS: 0 CONTR: 0
BUILDING NUMBER: 409	MALE NAFLI: 0 GS: 0 CONTR: 0
SHOP NAME: MCRD MCSS FOOD COURT	FEMALE NAFLI: 15 GS: 0 CONTR: 0
SITE SUPERVISOR: PETE IDSALL	IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)

Description of Operations/Tasks: Food Service Operations and administrative/management functions are located at building 409 at the MCAS MCRD Food Court. Food service personnel at this facility prepare and serve meals and perform scullery clean-up. The kitchen is equipped with deep fryers, ovens and flat top grills. Personnel serve food from the MCCS MCRD Food Court 6 days a week, but personnel may rotate to work other food service shops. There are currently 15 personnel at the MCAS MCCS Food Court: 8 sales associates, 5 cooks, a general manager, and an assistant manager. The food service workers share duties; they spend approximately 6 hours prepping and cooking food, and 2 hours collectively cleaning the facility each day. Management helps out in the kitchen and waiting on customers as needed.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Kitchen Duties Food preparation/washing dishes</p> <p>No major noise sources are noted for employees performing food preparation and washing dishes.</p> <p>Incidental noise sources can include people communicating or people occasionally hand washing pots/pans.</p>	5	1-2 hours/day	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise Sales Service Associates</p> <p>No major noise sources are noted for employees during food service duties.</p> <p>Incidental noise sources can include communicating with other personnel.</p>	8	6-8 hours/day	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise Administrative</p> <p>No major noise sources are noted for employees during administrative tasks.</p> <p>Incidental noise sources can include personnel communicating and incidental kitchen noise.</p> <p>Incidental noise sources can include people communicating or people occasionally hand washing pots/pans.</p>	2	15-30 minutes/day	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Chemical: Kitchen cleaners, Scott Brite: Glycerin. Austin A1 Bleach: ammonium hydroxide, sodium hypochlorite, sodium hydroxide. Ecolab Multi-Quat 146 and Solitaire:, sodium dodecylbenzene sulfonate, Ethoxylated alkyl sulfate. Wash 'N Walk: Sodium Xylensulfonate, Propylene Glycol, alcohol ethoxylate</p> <p>Personnel change out concentrated products that is distributed and diluted to concentrations that are not considered hazardous for Ecolab Multi-Surface Sanitizer, Solitaire 1000, Oasis 259 Glass Cleaner, Sanitizing Walk 'N Wash, and Oasis 146 Multi-Quat Sanitizer. Personnel use nitrile gloves, and vinyl aprons for this task. Personnel also use Scotch Brite 700 to clean the grill once a day.</p>	<p align="center">7</p>	<p align="center">1-2 hours/day</p>	<p>USED/REQUIRE D:</p> <p>PPE: Vinyl Gloves, Vinyl Aprons</p> <p>ADM: HAZCOM Training, PPE Training</p> <p>REQUIRED: PPE: Safety Goggles</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety glasses when cleaning with these products. PPE retraining is recommended.</p>
<p>Chemical: Sales Associates-Clorox Clean-up</p> <p>Sodium hypochlorite, ethanol and 2-butoxyethanol:</p> <p>Personnel use cleaning materials containing corrosives and irritants that are skin and eye splash hazards while mopping, sanitizing surfaces and cleaning ovens/grilles.</p> <p>Chronic or prolonged skin contact with these products may cause drying, defatting, inflammation and dermatitis of the skin.</p>	<p align="center">10</p>	<p align="center">1-2 hours/day</p>	<p>USED:</p> <p>PPE: Vinyl Gloves, Vinyl Aprons, Safety Goggles available</p> <p>ADM: HAZ COM Training, PPE Training</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety glasses when cleaning with these products. PPE retraining is recommended.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Physical: Ergonomics: Static Posture, Work-rate Repetition, Forceful Exertion</p> <p>The majority of work involves food preparation, cleaning the kitchen and equipment, and selling products. Sales associates have task variety (waiting on customers and cleaning surfaces), cooks have task variety in food preparation and cleaning the kitchen, and management performs all tasks including limited administrative work.</p> <p>The office workstation was not ergonomically designed, but personnel spent little time at this workstation.</p> <p>Heavy lifting is performed on a routine basis during supply related functions. Items can weigh up to 40 pounds.</p> <p>Personnel receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	<p align="center">15</p>	<p>4-6 hours/ day</p>	<p>USED:</p> <p>ADM: Training, Task Variety, Breaks, Two-man lift</p> <p>ENG: Carts, Anti-fatigue Mats</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p>
<p>Indoor Air Quality (IAQ) Concerns:</p> <p>Building 409 HVAC system is reported to break down at times. Canopies are located in the kitchen that help to ventilate cooking operations. No mold or mildew was present.</p>	<p align="center">7</p>	<p>Special occasions, 6-8 hours</p>	<p>USED:</p> <p>ENG: DV, LV-Canopies (2)</p>	<p>Acceptable. Based on no injuries/illnesses. No mold or mildew was present.</p>
<p>Physical: Heat Stress/Cold Stress</p> <p>Building 409 HVAC system is reported to break down at times. While canopy hoods are located in the kitchen, heat stress could become an issue.</p> <p>In the event that this happens, ensure personnel have heat stress training.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	<p align="center">7</p>	<p>Special occasions, 6-8 hours</p>	<p>USED:</p> <p>ADM: Hydration, Flags, Breaks</p> <p>ENG: DV, LV-Canopies (2)</p>	<p>Acceptable. Based on reported controls and no reports of heat or cold injuries or illnesses.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

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2. USE THE FOLLOWING EXPOSURE CODES:

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CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

RECORDED BY: MELODY HUBBS	DATE: 08 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 6377
COMMAND: MCCS	TOTAL PERSONNEL: 2 GS: 0 CONTR: 0
BUILDING NUMBER: 288	MALE NAFLI: 2 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS MCRD SAND TRAP	FEMALE NAFLI: 0 GS: 0 CONTR: 0
SITE SUPERVISOR: PETE IDSALL	IH TYPE/DATE: FOUR-YEAR DOEHR5 CAT 3 (RUC M02030026)

Description of Operations/Tasks: Food Service Operations administrative and management functions are located primarily at the Sand Trap, building 288. Food service personnel at this facility prepare and serve meals and perform scullery clean-up. The kitchen is equipped with deep fryers, ovens and flat top grills. There are currently 2 personnel at the Sand Trap, and they rotate cooking, cleaning, and providing food service to customers. The food service workers share duties; they spend approximately 4 hours prepping food, 2 hours serving food/cooking and 2 hours cleaning the facility each day.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Kitchen Duties Food preparation/washing dishes</p> <p>No major noise sources are noted for employees performing food preparation and washing dishes.</p> <p>Incidental noise sources can include people communicating or people occasionally hand washing pots/pans.</p>	2	6-8 hours/daily	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise Sales Service Associates and Kitchen Duties</p> <p>No major noise sources are noted for employees during food service duties.</p> <p>Incidental noise sources can include communicating with other personnel.</p>		6-8 hours/daily	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Chemical: Kitchen cleaners, Scott Brite: Glycerin. Austin A1 Bleach:, ammonium hydroxide, sodium hypochlorite, sodium hydroxide. Ecolab Multi-Quat 146 and Solitaire:, sodium dodecylbenzene sulfonate, Ethoxylated alkyl sulfate. Wash 'N Walk: Sodium Xylensulfonate, Propylene Glycol., alcohol ethoxylate</p> <p>Personnel change out concentrated products that is distributed and diluted to concentrations that are not considered hazardous for Ecolab Multi-Surface Sanitizer, Solitaire 1000, Oasis 259 Glass Cleaner, Sanitizing Walk 'N Wash, and Oasis 146 Multi-Quat Sanitizer. Personnel use nitrile gloves, and vinyl aprons for this task. Personnel also use Scotch Brite 700 to clean the grill once a day.</p> <p>Personnel use cleaning materials containing corrosives and irritants that are skin and eye splash hazards while mopping, sanitizing surfaces and cleaning ovens/grilles.</p> <p>Chronic or prolonged skin contact with these products may cause drying, defatting, inflammation and dermatitis of the skin.</p>	<p align="center">2</p>	<p>1-2 hours a day</p>	<p>USED/REQUIRED:</p> <p>PPE: Vinyl Gloves, Vinyl Aprons,</p> <p>ADM: HAZ COM Training, PPE Training</p> <p>REQUIRED: Safety Glasses</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety eyewear when cleaning with these products.</p> <p>PPE retraining is recommended.</p>
<p>Chemical: Sodium hypochlorite, ethanol and 2-butoxyethanol Personnel use cleaning materials containing corrosives and irritants that are skin and eye splash hazards while mopping, sanitizing surfaces and cleaning ovens/grilles.</p> <p>Chronic or prolonged skin contact with these products may cause drying, defatting, inflammation and dermatitis of the skin.</p>		<p>1-2 hours a day</p>	<p>USED:</p> <p>PPE: Vinyl Gloves, Vinyl Aprons, Safety Goggles available</p> <p>ADM: HAZ COM Training, PPE Training</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety eyewear when cleaning with these products.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Physical: Ergonomics Prolonged standing, work-rate/repetition, forceful exertion</p> <p>The majority of work involves food preparation, cleaning the kitchen and equipment, and selling products. Sales associates have task variety (waiting on customers and cleaning surfaces), cooks have task variety in food preparation and cleaning the kitchen, and management performs all tasks including limited administrative work.</p> <p>The office workstation was not ergonomically designed, but personnel spent little time at this workstation.</p> <p>Heavy lifting is performed on a routine basis during supply related functions. Items can weigh up to 40 pounds.</p> <p>Personnel receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	<p align="center">2</p>	<p>4-6 hours daily</p>	<p>USED:</p> <p>ADM- Training, Task Variety, Breaks, Two-man lift</p> <p>ENG- Carts, Anti-fatigue Mats</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p>
<p>Indoor Air Quality (IAQ) Concerns:</p> <p>Building 288 HVAC system is reported to break down at times. Canopies are located in the kitchen that help to ventilate cooking operations.</p>		<p>6-8 hours/daily</p>	<p>USED:</p> <p>ENG: DV, LV-Canopies (2)</p>	<p>Acceptable. Based on no injuries/illnesses. No mold or mildew was present.</p>
<p>Physical: Heat Stress/Cold Stress</p> <p>Building 288 HVAC system is reported to be adequate. While canopy hoods are located in the kitchen, heat stress could become an issue.</p> <p>In the event that this happens, ensure personnel have heat stress training.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	<p align="center">2</p>	<p>6-8 hours/daily</p>	<p>USED:</p> <p>ADM- Hydration, Flags, Rest Breaks</p> <p>ENG- DV, LV V-Canopies (2)</p>	<p>Acceptable. Based on reported controls and no reports of heat or cold injuries or illnesses.</p> <p>Recommendation: Heat stress needs to be provided for personnel.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS

PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION

ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.

UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.

SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD

REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD

CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 1242 SHOP NAME: MCAS MCCS MCRD LOG CABIN SITE SUPERVISOR: PETE IDSALL		DATE: 08 AUG 2016 PHONE: 228- 6377 TOTAL PERSONNEL: 4 GS: 0 CONTR: 0 MALE NAFLI: 2 GS: 0 CONTR: 0 FEMALE NAFLI: 2 GS: 0 CONTR: 0 IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)		
Description of Operations/Tasks: Food Service Operations functions are provided as needed at building 1242 at the MCCS MCAS Log Cabin. Personnel only work here when an event is taking place, such as a wedding reception. Food service personnel prepare meals at other facilities and sometimes serve meals; minimal kitchen clean-up is performed at this location; dishes are not stored here and are brought here. The kitchen is equipped with one cooktop, 2 refrigerators, an ice machine, and a sink. Personnel serve food from the MCCS MCAS Log Cabin usually drop off food for events, and personnel rotate to work other food service shops. Usually 4 food service personnel come to the log cabin to set up for events or cater. The food service workers share duties; they spend approximately 6 hours working at events at this location dropping off pans, setting up chairs/tables, serving, and cleaning up/putting away food. Dinner parties provide their own utensils. Personnel also bring cleaning products and PPE when personnel work at the MCCS MCAS Log Cabin.				
HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise Kitchen Duties/ Food Delivery/Catering Set-up Shop operations were not being performed during the course of the survey. Employees setting up catering, occasionally serving, and incidentally washing dishes. Overexposure is not anticipated.	4	4-6 hours/ Monthly	USED: PPE: None.	Uncertain. No historical noise dosimetry data (one measurement) is available for this shop. Additional measurement data is required to fully characterize noise exposure in this process. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Chemical: Kitchen cleaners Personnel bring cleaners to the shop when events occur. It is not known what cleaners they bring since it isn't standardized. However, an SDS book is not brought with them or kept at this location. It is not known if they bring PPE to this location when they work here.	4	30-60 minutes, Monthly	USED: PPE: None.	Uncertain. Shop operations were not being performed during the course of the survey. Based on what the same personnel use at other facilities, only vinyl gloves may be used. Additional information should be obtained during shop operations.

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
<p>Physical: Ergonomics Prolonged standing, work-rate/repetition, forceful exertion</p> <p>The majority of work involves catering set-up along with setting up table and chairs. Personnel rarely performed serving duties for these events; approximately 1-2 times a year.</p> <p>Heavy lifting is performed during these events during these events. Personnel use 2-man lifts if needed when carrying items.</p> <p>Personnel receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	4	4-6 hours, Monthly	<p>USED:</p> <p>ADM- Training, Task Variety, Breaks, Two-man lift</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p>
<p>Indoor Air Quality (IAQ) Concerns:</p> <p>Building 1242 HVAC system was operational and it was not reported to have any maintenance issues. No mold was observed. Cooking is not performed in this building.</p>	4	4-6 hours, Monthly	<p>USED:</p> <p>ENG: DV</p>	<p>Acceptable. Based on no injuries/illnesses. No mold or mildew was present.</p>
<p>Physical: Heat Stress/Cold Stress</p> <p>Building 1242 has an HVAC system. Personnel may only be exposed to heat/cold stress while carrying trays of food in and out of the building. Cooking is not performed in this building, and canopy hoods were not installed over the cooktop. Overexposures were not reported and are not anticipated.</p> <p>Ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	4	4-6 hours/ Monthly	<p>USED:</p> <p>ADM: Hydration, breaks</p> <p>ENG: DV</p>	<p>Acceptable. Based on reported controls and no reports of heat or cold injuries or illnesses. Heat stress training needs to be performed.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

RECORDED BY: MELODY HUBBS	DATE: 09 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 7695
COMMAND: MCCS	TOTAL PERSONNEL: 24 GS: 0 CONTR: 0
BUILDING NUMBER: 79	MALE NAFI: 9 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS MCRD TRADITIONS	FEMALE NAFI: 15 GS 0 CONTR: 0
SITE SUPERVISOR: PETE IDSALL	IH TYPE/DATE: FOUR-YEAR DOEHRs CAT 3 (RUC M02030026)

Description of Operations/Tasks: Food Service Operations administrative and management functions are located primarily at the Traditions, Building 79. This restaurant is open Tuesday through Friday, and personnel rotate working here and at other restaurant venues as needed. Food service personnel at this facility prepare and serve meals and perform scullery clean-up. The kitchen is equipped with deep fryers, ovens and flat top grills. There are currently 25 personnel at Traditions: 2 bartenders/cashiers, a general manager, an assistant manager, an administrative assistant, 3 dishwashers, 10 servers, one part-time catering manager, 1 chef, and 4 food service prep personnel. The food service workers share duties; they spend approximately 4 hours prepping food, 2 hours serving food/cooking and 2 hours cleaning the facility each day. The dishwasher spends the majority of his time washing dishes, but helps with cleaning and other duties as needed. Management helps out in the kitchen as needed. Personnel perform housekeeping duties in sweeping, mopping, cleaning the kitchen, clearing tables, power washing the walls, washing windows, and vacuuming.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise Scullery</p> <p>Dishes, utensils, pots and pans are sent through an automated washer and some are washed by hand. Afterwards the dishes, utensils, pots and pans are stacked onto a drying rack. The dishwashers spend the majority of their time washing dishes, but they also clean the windows and bathrooms. Handling cookware plates and utensils produces hazardous noise.</p>	3	6-8 hours/day	<p>USED:</p> <p>PPE: None</p>	<p>Uncertain: No historical noise dosimetry data (one measurement) is available for this shop. Additional measurement data is required to fully characterize noise exposure in this process.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise Servers</p> <p>No major noise sources are noted for employees during food service duties.</p> <p>Incidental noise sources can include communicating with other personnel.</p>	5	6-8 hours/daily	<p>USED:</p> <p>PPE: None</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Chemical: Lime Away by Ecolab: urea, Austin's Al Bleach: Sodium hydroxide, sodium acetate, urea, ethanol, polyethylene glycol: cleaners, ammonium hydroxide, sodium hypochlorite, sodium hydroxide.</p> <p>Ecolab Multi-Quat and APEX Manual: ,sodium dodecylbenzene sulfonate, Ethoxylated alkyl sulfate, and alcohol ethoxylate ethylenediamine tetraacetate</p> <p>Manual and automatic dishwashing products contain corrosives and eye irritants.</p>	3	6-8 hours/day	<p>USED/REQUIRED:</p> <p>PPE: Vinyl Gloves, chemical splash goggles, vinyl apron, nitrile elbow length gloves</p> <p>ADM: HAZCOM Training, PPE Training</p> <p>REQUIRED:</p> <p>Safety Glasses</p>	<p>Acceptable: Limited duration and low concentration of chemicals.</p> <p>An eyewash was not within 10 second of this process/without obstacles. Automatic dishwashing products are dispensed to minimize exposure, but personnel still change out container hoses without safety glasses. Personnel also do not use safety glasses when using Lime Away.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
<p>Indoor Air Quality (IAQ) Concerns:</p> <p>Building 79 HVAC system was operational and it was not reported to have any maintenance issues. Mold was observed in the stairwell to the basement.</p>	25	6-8 hours, daily	<p>USED:</p> <p>ENG: DV</p>	<p>Acceptable. Based on no injuries/illnesses; personnel rarely need to obtain anything from the basement, and the supervisor stated they plan to obtain a dehumidifier. The HVAC system does not have a duct in the basement stairwell.</p>
<p>Physical: Heat Stress/Cold Stress</p> <p>Building 79 HVAC has an adequate HVAC system. While canopy hoods are located in the kitchen, heat stress could become an issue.</p> <p>In the event that this happens, ensure personnel have heat stress training.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p> <p>Ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	25	6-8 hours, daily	<p>USED:</p> <p>ADM-Hydration, breaks</p> <p>ENG: DV, LV</p>	<p>Acceptable: Based on reported controls and no reports of heat or cold injuries or illnesses.</p> <p>Recommendation: Heat stress training should be provided to personnel.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 18 SHOP NAME: MCAS MCCS MCRD LYCEUM SITE SUPERVISOR: PETE IDSALL		DATE: 11 AUG 2016 PHONE: 228- 7695 TOTAL PERSONNEL: 12 GS: 0 CONTR: 0 MALE NAFLI: 4 GS: 0 CONTR: 0 FEMALE NAFLI: 8 GS: 0 CONTR: 0 IH TYPE/DATE: FOUR-YEAR DOEHR CAT 3 (RUC M02030026)		
Description of Operations/Tasks: Food Service Operations are located primarily at the Lyceum, building 18. Food service personnel at this facility prepare and serve meals and perform scullery clean-up. Personnel also rotate jobs to work at any of the restaurant venues as needed. The kitchen is equipped with deep fryers, ovens and flat top grills. Personnel serve food from the Lyceum three days a week and they rotate to other venues such as the Sand Trap, Traditions, the two Food Courts, the Log Cabin, and the Officer's Club. There are currently personnel at Traditions: a kitchen manager, 3 food service personnel, 2 dishwashers, and 6 servers. The food service workers share duties; they spend approximately 4.5 hours prepping food, 2.5 hours serving food/cooking and 1 hours cleaning the facility each day. The dishwasher spends the majority of his time washing dishes, but helps with cleaning and other duties as needed. Management helps out in the kitchen as needed. Personnel perform housekeeping duties in sweeping, mopping, cleaning the kitchen, clearing tables, occasionally power washing the walls, washing windows, and vacuuming.				
HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise Scullery Dishes, utensils, pots and pans are sent through an automated washer and some are washed by hand. Afterwards the dishes, utensils, pots and pans are stacked onto a drying rack. The dishwasher spends the majority of his time washing dishes, but all kitchen personnel help wash dishes, as needed. Handling cookware plates and utensils produces hazardous noise.	2	6-8 hours/day	USED: PPE: None	Uncertain: No historical noise dosimetry data (one measurement) is available for this shop. Additional measurement data is required to fully characterize noise exposure in this process. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Physical: Noise Food Service/Bartender The only major noise source noted for employees during food service duties would be the PA system being used while they are serving meals. Incidental noise sources can include communicating with other personnel.	6	6-8 hours/day	USED: PPE: None	Acceptable. Potential for limited duration of incidental noise exposure. However, only one server was working during the course of the survey. The PA system may pose a noise hazard, however it was not being used during the course of the survey. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Chemical: Scullery: Lime Away: urea. Ecolab Multi-quat 146 and Apex Manual: sodium dodecylbenzene sulfonate, Ethoxylated alkyl sulfate</p> <p>Personnel use cleaning materials containing corrosives and irritants that are skin and eye splash hazards while mopping, sanitizing surfaces and cleaning ovens/grilles. Chronic or prolonged skin contact with these products may cause drying, defatting, inflammation and dermatitis of the skin.</p> <p>Manual and automatic dishwashing products contain corrosives and eye irritants. Personnel use cleaning materials containing corrosives and irritants that are skin and eye splash hazards while mopping, sanitizing surfaces and cleaning ovens/grilles.</p>	<p align="center">3</p>	<p align="center">6-8 hours/day</p>	<p>USED/REQUIRED:</p> <p>PPE: Vinyl Gloves, chemical splash goggles, vinyl apron, nitrile elbow length gloves</p> <p>ADM: HAZ COM Training, PPE Training</p> <p>REQUIRED:</p> <p>Safety Glasses</p>	<p>Acceptable: Limited duration and low concentration of chemicals.</p> <p>An eyewash was not within 10 second of this process/without obstacles. Automatic dishwashing products are dispensed to minimize exposure, but personnel still change out container hoses without safety glasses.</p> <p>Personnel also do not use safety glasses when using Lime Away. Most of these materials are used in dilute concentrations and applied via low-pressure spray. Adequate PPE is available for personnel protection.</p> <p>PPE retraining recommended.</p>
<p>Chemical: Food Prep Personnel Scotch Brite Glycerin</p> <p>Personnel use diluted products by Ecolab that state they are non-hazardous when diluted. They also clean the grills as needed with Scotch Brite.</p>	<p align="center">4</p>	<p align="center">30-60 minutes/day</p>	<p>USED/REQUIRED:</p> <p>PPE: Vinyl Gloves</p> <p>ADM: HAZ COM Training, PPE Training</p> <p>REQUIRED:</p> <p>Safety glasses</p>	<p>Acceptable: Personnel only use diluted products by Ecolab that list that products are not hazardous when diluted.</p> <p>However, they do not use safety glasses when cleaning the grill with Scotch Brite.</p> <p>PPE retraining recommended.</p>
<p>Physical: Ergonomics Prolonged standing, work-rate/repetition, forceful exertion</p> <p>The majority of work involves food preparation, cleaning the kitchen and equipment, and selling products. Servers have task variety (waiting on customers and cleaning surfaces), cooks have task variety in food preparation and cleaning the kitchen, and management may come and assist if needed.</p> <p>Heavy lifting is performed on a routine basis during supply related functions. Items can weigh up to 40 pounds.</p> <p>Personnel receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	<p align="center">12</p>	<p align="center">4-6 hours daily</p>	<p>USED:</p> <p>ADM: Training, Task Variety, Breaks, Two-man lift</p> <p>ENG: Carts, Anti-fatigue Mats</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
Indoor Air Quality (IAQ) Concerns: Building 18 HVAC system was operational and it was not reported to have any maintenance issues.	12	6-8 hours/day	USED: ENG: DV	Acceptable: Based on no injuries/illnesses. No mold or mildew was noted during the course of the survey.
Physical: Heat Stress/Cold Stress Building 18 HVAC has an adequate HVAC system. While canopy hoods are located in the kitchen, heat stress could become an issue. Ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.		6-8 hours/day	USED: ADM: Hydration, rest breaks ENG: DV	Acceptable: Based on reported controls and no reports of heat or cold injuries or illnesses. Heat Stress training is recommended for employees. <u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>

1. USE THE FOLLOWING CONTROL CODES: ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION
2. USE THE FOLLOWING EXPOSURE CODES: ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

RECORDED BY: MELODY HUBBS	DATE: 10 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 6377
COMMAND: MCCS	TOTAL PERSONNEL: 3 GS: 0 CONTR: 0
BUILDING NUMBER: 283	MALE NAFLI: 1 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS MCRD JAVA CAFE	FEMALE NAFLI: 2 GS 0 CONTR: 0
SITE SUPERVISOR: PETE IDSALL	IH TYPE/DATE: FOUR-YEAR DOEHRS CAT 3 (RUC M02030026)

Description of Operations/Tasks: Food Service Operations administrative and management functions are located primarily at the Java Café, building 283 on Wednesday from 0800-1200, Thursday 0600-1500, and Friday 0600-1200. Food service personnel at this facility prepare and serve meals and perform kitchen clean-up. Personnel also rotate jobs to work at the other restaurant venues as needed. The kitchen is equipped with an oven, hot dog broiler, smoothie blenders, and pizza oven. Personnel serve food from the Java Café 3 days a week and they rotate where needed, but mainly at the Food Courts. There are currently 3 personnel at the Java Café: a cook, a manager, and food service worker. Personnel share duties; they spend approximately 4-6 hours prepping food and cooking, 4-6 hours waiting on customers, and 2 hours cleaning the facility each day. Personnel perform housekeeping duties in sweeping, mopping, cleaning the kitchen, and cleaning the dining room.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Kitchen Operations</p> <p>Dishes, utensils, pots and pans are washed by hand. Afterwards the dishes, utensils, pots and pans are stacked onto a drying rack. Both personnel may perform this task. Handling cookware plates and utensils produces hazardous noise.</p>	2	1-2 hours/ 2-3 times/week	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise</p> <p>Sales Service Associates</p> <p>No major noise sources are noted for employees during food service duties.</p> <p>Incidental noise sources can include communicating with other personnel.</p>	2	6-8 hours/2-3 times week	<p>USED:/REQUIRED</p> <p>PPE: None. required</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise</p> <p>Administrative</p> <p>No major noise sources are noted for employees during administrative tasks.</p> <p>Incidental noise sources can include personnel communicating and incidental kitchen noise.</p> <p>Incidental noise sources can include people communicating or people occasionally hand washing pots/pans.</p>	1	2-4 hours minutes/ 2-3 times a week	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE

<p>Chemical: Sodium hydroxide, 2-butoxyethanol, ethanolamine, sodium dodecylbenzene sulfonate, Ethoxylated alkyl sulfate, 2-propanol, propylene glycol propyl ether</p> <p>Personnel are using bleach to clean, and spray it without using safety glasses. Personnel change out containers of corrosives and irritants (which are delivered through a distribution station for dilution) while not using safety glasses. Products include: Clean Force Concentrated Heavy Duty Degreaser, Apex Manual Detergent by Ecolab, A-Bleach, all purpose cleaner by Fabuloso, Ecolab Oasis 146 Multi-Quat, Oasis 258G Glass Cleaner, and Oasis 133.</p>	<p align="center">2</p>	<p>1-2 hours, 2-3 times a week</p>	<p>USED/REQUIRED:</p> <p>PPE: Vinyl Gloves, Rubber Gloves, Vinyl Aprons, Safety Goggles</p> <p>ADM: Hazard Communication Training, PPE Training</p> <p>REQUIRED:</p> <p>PPE: Safety Glasses/ Goggles</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety glasses when cleaning with these products. No eye wash has been installed in this shop.</p> <p>PPE retraining is recommended.</p> <p>NOTE: it is recommended that a product substitution be implemented for Shelia Shine that contains 10-30% perchlorethylene that has a 25 TLV.</p> <p>Also, a dust mask has been provided to personnel (that they do not use) but Appendix D of 29 CFR 1910.134 was not provided.</p>
<p>Chemical: Clorox Clean-up: Sodium hypochlorite, ethanol and 2-butoxyethanol</p> <p>Sales Associates</p> <p>Personnel use cleaning materials containing corrosives and irritants that are skin and eye splash hazards while mopping, and sanitizing surfaces.</p> <p>Chronic or prolonged skin contact with these products may cause drying, defatting, inflammation and dermatitis of the skin.</p>	<p align="center">2</p>	<p>1-2 hours, 2-3 times a week</p>	<p>USED/REQUIRED:</p> <p>PPE: Vinyl Gloves, Rubber Gloves, Vinyl Aprons,</p> <p>ADM: Hazard Communication Training, PPE Training</p> <p>REQUIRED:</p> <p>PPE: Safety Glasses/ Goggles</p>	<p>Acceptable. Limited duration and low concentration of chemicals.</p> <p>Personnel do not use safety glasses when cleaning with these products.</p> <p>PPE retraining is recommended.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT BASELINE				
<p>Physical: Ergonomics Prolonged standing, work-rate/repetition, forceful exertion</p> <p>The majority of work involves food preparation, cleaning the kitchen and equipment, and selling products. The sales associate has task variety (waiting on customers and cleaning surfaces), the manager/cook has task variety in food preparation and cleaning the kitchen, waiting on customers, and management performs all tasks including limited administrative work.</p> <p>The office workstation was not ergonomically designed, but personnel spent little time at this workstation.</p> <p>Heavy lifting is performed on a routine basis during supply related functions. Items can weigh up to 40 pounds.</p> <p>Personnel stated that they have not receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	3	6-8 hours/2-3 times a week	<p>USED:</p> <p>ADM- Training, Task Variety, Breaks, Two-man lift</p> <p>ENG- Dolly/Cart, Anti-fatigue Mats</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p>
	1	2-4 hours/2-3 times a week	ADM- Training, Task Variety, Breaks,	
<p>Indoor Air Quality (IAQ) Concerns:</p> <p>Building 283 HVAC system is reported to be adequate. No other ventilation systems have been installed in this shop.</p>	3	6-8 hours/2-3 times a week	<p>USED:</p> <p>ENG: DV</p>	<p>Acceptable. Based on no injuries/illnesses. No mold or mildew was present.</p>
<p>Physical: Heat Stress/Cold Stress</p> <p>Building 283 HVAC system is reported to be adequate. Heat and cold stress reported to not be a potential hazard.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	3	6-8 hours/2-3 times a week	<p>USED:</p> <p>VENT: DV</p>	<p>Acceptable. Based on reported controls and no reports of heat or cold injuries or illnesses.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: MELODY HUBBS INSTALLATION: MARINE CORPS RECRUIT DEPOT COMMAND: MCCS BUILDING NUMBER: 409 SHOP NAME: MCAS MCCS MCRD MARINE CORPS EXCHANGE SITE SUPERVISOR: CHUCK COZART	DATE: 10 AUG 2016 PHONE: 228- 1682 TOTAL PERSONNEL: 54 GS: 0 CONTR: 0 MALE NAFLI: 10 GS: 0 CONTR: 0 FEMALE NAFLI: 44 GS 0 CONTR: 0 IH TYPE/DATE: FOUR-YEAR DOEHS CAT 3 (RUC M02030026)
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Description of Operations/Tasks: The Marine Corps Exchange on the Marine Corps Recruit Depot is located in building 409. Hours of operation are from 0600-2200 daily, except for Sunday which is 0700-2200. The Exchange sells home goods, food, and gas for Marines on the Depot. Processes include warehouse, stocking, custodial, cashiers, floor service personnel, and administration. There are 2 General Manager, 6 Assistant Managers, 12 cashiers, 10 Department managers, 22 floor sales associates, and 2 custodians. Cashiers and custodians will stock items in the mini-mart portion of the exchange for 1-2 hours a day in the coolers and on the shelves; they also unpack boxes in the warehouse/stock room as needed. Carts and dollies are available for use; and they use two-man lifts if needed. Vendors bring in the merchandise into this warehouse/stock room.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
Physical: Noise Sales Service Associates/floor sales associates No major noise sources are noted for employees during their work shift.	22	6-8 hours/day	USED: PPE: None.	Acceptable. Limited duration of incidental noise exposure. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Physical: Noise Administrative No major noise sources are noted for employees during administrative tasks. Incidental noise sources can include traffic when personnel may need to address spills outside.	8	4-6 hours/day	USED: PPE: None.	Acceptable. Limited duration of incidental noise exposure. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>
Physical: Noise Custodian No major noise sources are noted for employees custodial duties Incidental noise sources can include communicating with other personnel and traffic outside when they are cleaning.	2	6-8 hours/day	USED: PPE: None.	Acceptable. Limited duration of incidental noise exposure. <u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Chemical: Austin's wipe away-2-butyoxyethanol, Isopropanol. Lysol Toilet Bowl Cleaner-, hydrogen chloride. Clorox-, sodium hypochlorite, sodium hydroxide Champion Lemon Furniture Polish:, ethanol, liquefied petroleum gases, Alkyl dimethyl benzyl ammonium chlorides, isoparaffinic hydrocarbon, hydrotreated petroleum distillates, dust</p> <p>Custodial cleaners</p> <p>Personnel are using bleach to clean, and spray it without using safety glasses. Personnel change out containers of corrosives and irritants (which are delivered through a distribution station for dilution) while not using safety glasses.</p> <p>Chronic or prolonged skin contact with these products may cause drying, defatting, inflammation and dermatitis of the skin.</p>	<p align="center">2</p>	<p align="center">2-4 hours/day</p>	<p>USED/REQUIRED:</p> <p>PPE: Nitrile and Latex Gloves, Plastic Aprons, dust masks</p> <p>ADM: Hazard Communication Training, PPE Training</p> <p>REQUIRED:</p> <p>PPE: Safety glasses/goggles</p>	<p>Acceptable. Based on limited quantity and duration and use of some PPE.</p> <p>Personnel do not use safety glasses/goggles when cleaning with these products.</p> <p>SDSs were not available for all cleaners being used. Bottles were not labeled adequately in either labels were worn off or were not labeled.</p> <p>Appendix D was not provided to personnel who utilize dust masks.</p> <p>PPE retraining is recommended.</p>
<p>Physical: Ergonomics Static posture, work-rate/repetition, forceful exertion</p> <p>The majority of work involves prolonged standing, forceful exertion, work rate/repetition, and dynamic posture. Personnel involved in sales have task variety (waiting on customers, stocking shelves/freezer, and cleaning surfaces), custodians clean half the time and stock half the time, and managers perform administrative tasks help customers and stock products and limited administrative work.</p> <p>The administration office workstation were not ergonomically designed, and personnel spent little time at this workstation.</p> <p>Heavy lifting is performed on a routine basis during supply related functions. Items can weigh up to 40 pounds.</p> <p>Personnel stated that they receive site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	<p align="center">10 Administ ration</p> <p align="center">12 Cashiers</p> <p align="center">32 Floor sales associat es and Departme nt Managers</p> <p align="center">2 Custodia ns</p>	<p align="center">1-2 hours/ day</p> <p align="center">6-8 hours/day</p> <p align="center">daily,6-8 hours/day</p> <p align="center">6-8 hours/day</p>	<p>USED/REQUIRED:</p> <p>ADM- Training, Task Variety, Breaks</p> <p>ADM- Training, Task Variety, Breaks ,, Two-man lift</p> <p>ENG- Dollies/Carts, Anti-fatigue Mats</p> <p>ADM- Training, Task Variety, Breaks</p> <p>ADM- Training, Task Variety, Breaks ,Two-man lift</p> <p>ENG- Dollies/Carts, Anti-fatigue Mats</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p>Recommendation: Provide administration personnel with ergonomically designed workstations, i.e., chairs, and desks.</p> <p><u>Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.</u></p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

<p>Physical: Heat Stress/Cold Stress</p> <p>Building 409 HVAC system is reported to be adequate. Heat and cold stress reported to be incidental since personnel only spend short durations in coolers/outside.</p> <p>In the event that this happens, ensure personnel have heat stress training.</p> <p>Also, ensure that workers who become pregnant complete forms required by OPNAVINST 6000.1C and are evaluated by Naval Hospital Occupational Health.</p>	<p align="center">16</p>	<p>Daily, 15-30 minutes</p>	<p>USED:</p> <p>ADM: Job Rotation</p>	<p>Acceptable. Based on reported controls and no reports of heat or cold injuries or illnesses.</p> <p><u>Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p> <p>Note: ventilation surveys need to be performed for the canopies to ensure they continue to provide adequate ventilation.</p>
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1. USE THE FOLLOWING CONTROL CODES:

ADM - ADMINISTRATIVE CONTROLS
 PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION
 ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION

2. USE THE FOLLOWING EXPOSURE CODES:

ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.
 UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.
 SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD
 REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD
 CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT

RECORDED BY: MELODY HUBBS	DATE: 12 AUG 2016
INSTALLATION: MARINE CORPS RECRUIT DEPOT	PHONE: 228- 1505
COMMAND: MCCS	TOTAL PERSONNEL: 7 GS: 0 CONTR: 0
BUILDING NUMBER: 201	MALE NAFLI: 1 GS: 0 CONTR: 0
SHOP NAME: MCAS MCCS MCRD FAMILY TEAM BUILDING	FEMALE NAFLI: 6 GS 0 CONTR: 0
SITE SUPERVISOR: DEANNA SIMPSON	IH TYPE/DATE: FOUR-YEAR DOEHRS CAT 3 (RUC M02030026)

Description of Operations/Tasks: MCAS MCCS MCRD Family Team Building provides workshops and coordinates meetings for the Marine Corps Recruit Depot. A Director oversees 7 other employees; 1 trainer, 1 administrative specialist, 1 life skills trainer, 1 family readiness program trainer, a part-time food/hospitality director, and a receptionist. A custodian is supervised by another entity and does not work at this building full-time. Personnel mainly perform administrative tasks from 0800-1630 daily. Occasionally, personnel vacuum, use Lysol wipes to wipe down desks/tables, and set up their lounge area with refreshments once a month. A custodian comes to clean the facility twice a week, but is not supervised by this shop.

HEALTH HAZARDOUS STRESSORS AND ASSOCIATED OPERATIONS	NUMBER OF WORKERS	DURATION & FREQUENCY	CONTROLS (1)	WORKING EXPOSURE ASSESSMENT (2)
<p>Physical: Noise</p> <p>Administrative</p> <p>No major noise sources are noted for employees during administrative tasks.</p> <p>Incidental noise sources can include on rare occasions watching movies on family movie night in the meeting room. Otherwise, when meetings are conducted, the doors are closed which circumvents noise exposure.</p>	7	RARE, prolonged exposure	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Physical: Noise Vacuuming</p> <p>Vacuuming carpets in the facility as needed. Limited duration of incidental noise exposure.</p>	7	0-15 minutes, as needed	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration of incidental noise exposure.</p> <p><u>Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.</u></p>
<p>Chemical: Ethyl Alcohol</p> <p>Table top cleaner</p> <p>Personnel use about 2 containers of Lysol cleaning wipes a month per person. Gloves are not required.</p>	7	0-15 minutes, Daily	<p>USED:</p> <p>PPE: None.</p>	<p>Acceptable. Limited duration, use of cleaning products in a similarly to what they would use at home.</p> <p>Recommended: Nitrile gloves. No SDS was available.</p>

INDIVIDUAL WORKCENTER HAZARD ASSESSMENT				
<p>Physical: Ergonomics work-rate/repetition, static posture</p> <p>The vast majority of the work involves administrative tasks at office workstations, which were ergonomically designed. Otherwise, personnel may occasionally vacuum for 15 minutes as needed.</p> <p>Personnel stated they have not received site specific Ergonomics Training for the ergonomic hazards in their workplace. An excellent resource for training on administrative ergonomics is found at the DOD Environment, Safety and Occupational Health Network and Information Exchange (DENIX) @ www.denix.osd.mil which offers free posters and free fact sheets for administrative operations and administrative workstation design and use.</p>	7	6-8 hours daily	<p>USED:</p> <p>ADM: Task Variety, Breaks</p> <p>ENG: Ergonomically designed chairs, adjustable monitors</p>	<p>Acceptable. No reports of discomfort have been reported for these tasks.</p> <p>Site Specific Office Ergonomics Training recommended.</p>
<p>Indoor Air Quality (IAQ) Concerns:</p> <p>Building 201 HVAC system is not reported to break down at times. No other ventilation systems have been installed in this shop.</p>	7	Rare, prolonged exposure	<p>USED:</p> <p>None</p>	<p>Acceptable. Based on no injuries/illnesses. No mold or mildew was present.</p>

<p>1. USE THE FOLLOWING CONTROL CODES:</p> <p>ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION</p>
<p>2. USE THE FOLLOWING EXPOSURE CODES:</p> <p>ACCEPTABLE - ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN - ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNACCEPTABLE - ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN - THE MATERIAL POSES A SKIN ABSORPTION HAZARD REPRODUCTIVE HAZARD - THE MATERIAL IS A NAVY-RECOGNIZED REPRODUCTIVE HAZARD CARCINOGEN - THE MATERIAL CONTAINS > 0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNIZED CARCINOGEN</p>

**MCCS
MCAS BEAUFORT AND MCRD PARRIS ISLAND
WORKPLACE MONITORING PLAN 2016**

Work Center	Operation to be sampled	Type	Vent Description	Hazard/ Stressor	# Samples	Method	Location of Sample	Frequency
MCAS MCCS SKILLS CENTER @ MCAS	VENTILATION: Flexible local exhaust hoods (2)	VENT	DEDICATED	VENTILATION	As needed	DIRECT READING/ SMOKE	GA- GENERAL AREA	ANNUAL
MCAS BOWLING CENTER	PIN SETTING, MAINTENANCE	NOISE	NA	NOISE	3	DOSIMETRY	BZ- BREATHING ZONE	ONE TIME
MCAS RECREATIONAL EQUIPMENT ISSUE	BOAT MAINTENANCE	AIR	ROOM SUPPLY AND EXHAUST	CARBON MONOXIDE	As needed	DATA LOGGING	BZ- BREATHING ZONE	ONE TIME
MCAS RECREATIONAL EQUIPMENT ISSUE	BOAT MAINTENANCE	VENT	ROOM SUPPLY AND EXHAUST	VENTILATION	As needed	DIRECT READING/ SMOKE	GA- GENERAL AREA	ANNUAL
MCAS FITNESS CENTER	LAUNDRY	NOISE	NA	NOISE	As needed	DIRECT READING	GA- GENERAL AREA	BASELINE
MCAS CHILD DEVELOPMENT CENTER	KITCHEN PROCESSES	NOISE	NA	NOISE	As needed	DIRECT READING	GA- GENERAL AREA	ONE TIME
MCAS O'CLUB	KITCHEN PROCESS	NOISE	NA	NOISE	As needed	DIRECT READING	GA- GENERAL AREA	ONE TIME
MCAS MCCS SKILLS CENTER @ MCRD	VENTILATION: Ventilation survey LEV (4). Maintenance bay	VENT	DEDICATED	VENTILATION	As needed	DIRECT READING/ SMOKE	GA- GENERAL AREA	ANNUAL
MCRD GOLF COURSE PEST CONTROL BLDG. 299	HERBICIDE APPLICATION- Foliage control	AIR	NA	HERBICIDE	6	METHOD PER NAVY LAB	BZ- BREATHING ZONE	ANNUAL
MCRD GOLF COURSE PEST CONTROL BLDG. 299	ORGANOPHOSPHATES APPLICATION	AIR	NA	ORGANO- PHOSPHATES	6	METHOD PER NAVY LAB	BZ- BREATHING ZONE	ANNUAL
MCRD GOLF COURSE PEST CONTROL BLDG. 299	SILICA. DRY BROADCAST OF FUNGICIDE	AIR	NA	SILICA	6	METHOD PER NAVY LAB	BZ- BREATHING ZONE	ANNUAL
MCRD GOLF COURSE PEST CONTROL BLDG. 299	NEW GROUNDSKEEPING EQUIPMENT		NA	NOISE	ALL NEW EQUIP- MENT	NOISE LEVEL SURVEY	HZ- HEARING ZONE	ONE TIME
MCRD GOLF COURSE PEST CONTROL BLDG. 299	VENTILATION (Room): PESTICIDE STORAGE ROOM	VENT	ROOM SUPPLY AND EXHAUST	VENTILATION	As needed	DIRECT READING/ SMOKE	GA- GENERAL AREA	ANNUAL
MCRD FACILITY MAINTENANCE SHOP	VENTILATION: CARPENTRY AREA/WOODWORKING	AIR	LEV	WOOD DUST	6	METHOD PER NAVY LAB	BZ- BREATHING ZONE	ONE TIME
MCRD FACILITY MAINTENANCE SHOP	VENTILATION: CARPENTRY AREA/WOODWORKING	VENT	LEV	VENTILATION	As needed	DIRECT READING/S MOKE	GA- GENERAL AREA	ANNUAL
MCRD FACILITY MAINTENANCE SHOP	SHOP OPERATIONS	NOISE	NA	NOISE	6	DOSIMETRY	BZ- BREATHING ZONE	ONE TIME FLEE

**MCCS
MCAS BEAUFORT AND MCRD PARRIS ISLAND
WORKPLACE MONITORING PLAN 2016**

Work Center	Operation to be sampled	Type	Vent Description	Hazard/Stressor	# Samples	Method	Location of Sample	Frequency
MCRD FLEET MAINTENANCE	SHOP OPERATIONS	NOISE	NA	NOISE	6	DOSIMETRY	BZ-BREATHING ZONE	ONE TIMEFLEE
MCRD TRADITIONS	SCULLERY/KITCHEN ACTIVITIES	NOISE	NA	NOISE	As needed	DIRECT RADING	GA-GENERAL AREA	BASELINE
MCRD LYCEUM	SCULLERY/KITCHEN ACTIVITIES	NOISE	NA	NOISE	As needed	DIRECT RADING	GA-GENERAL AREA	BASELINE

SUMMARY OF MEDICAL SURVEILLANCE NEEDS FOR MCCS MCAS BEAUFORT AND MCRD PARRIS ISLAND					
BASE	WORK CENTER	OPERATION/ STRESSOR	CONTROLS	RECOMMENDED MEDICAL SURVEILLANCE PROGRAM	NUMBER OF PERSONNEL
MCAS	MCCS Administrative Office	Clerical work	Ergonomic Awareness	None	34
MCAS	Bowling Alley	Recreational equipment maintenance	PPE, Work practices	None	7
MCAS	Child Development Center (CDC)	Blood borne pathogen	Work practices, training & PPE	178- Blood and /or Body Fluids Exam 703- Child Care Worker Exam	59
MCAS	Family Team Building	Programs for family readiness	None	None	9
MCAS	Fitness Center	Health and wellness program	None	None	22
MCAS	Library (MCAS and MCRD)	Administrative	Ergonomic Awareness	None	10
MCAS	Marine Corps Exchange (MCX)	Forklift operation	Work practices and PPE	710- Forklift Operator Exam	2
MCAS	MCCS Recreational Equipment Issue	Forklift operation	Work practices, training & PPE	710- Forklift Operator	2
MCAS	Skills Education Center (Auto Hobby Shop)	Auto repair and maintenance	Work practices, training & PPE	None	3
MCAS	Laurel Bay MCCS Youth Center	Blood borne pathogen	Work practices, training & PPE	178- Blood and /or Body Fluids Exam 703- Child Care Worker Exam	12
MCAS	MCCS Recreational Equipment Issue	Forklift operation	Work practices, training & PPE	710-Forklift Operator Exam	2
MCAS	Food Court	Food handling	Work practices, training & PPE	709-Food Service Personnel	7
MCAS	O'Club	Food handling	Work practices, training & PPE	709-Food Service Personnel	9
MCRD	Bowling Alley	Recreational equipment maintenance	Work practices & PPE	None	4
MCRD	MCCS CDC	Blood borne pathogen	Work practices, training & PPE	178- Blood and /or Body Fluids Exam 703- Child Care Worker Exam	58
MCRD	Engraving Shop	Manufacture of plaque and memorabilia	Work practices, training & PPE	None	6
MCRD	Family Team Building	Programs for family readiness	Ergonomic Awareness	None	7
MCRD	Fitness Center	Health and wellness program	Work practices and PPE	None	17
MCRD	Fleet Maintenance Shop	Auto repair and maintenance	Work practices and PPE	Pending noise dosimetry	2
MCRD	Golf Course/Pest Control Shop	Organophosphates, silica, pyrethrum	Full face/Half face/organic vapor/HEPA Filter	716- Respiratory User Certification Exam Pending sampling results for other programs	6

SUMMARY OF MEDICAL SURVEILLANCE NEEDS FOR MCCS MCAS BEAUFORT AND MCRD PARRIS ISLAND					
BASE	WORK CENTER	OPERATION/ STRESSOR	CONTROLS	RECOMMENDED MEDICAL SURVEILLANCE PROGRAM	NUMBER OF PERSONNEL
MCRD	Golf Course/Pest Control Shop	Noise: Lawnmowers/edgers and tractors	Single Hearing Protection	503- Hearing Conservation Program	6
MCRD	Grounds Maintenance	Noise: Lawnmowers/edgers and tractors	Single Hearing Protection	503- Hearing Conservation Program	8
MCRD	Facility Maintenance Shop	MCCS building repair and maintenance	Work practices, training & PPE	Pending noise dosimetry	10
MCRD	Skills Education Center (Auto Hobby Shop)	Noise: Using pneumatic tools and grinders	Single Hearing Protection/Double Hearing Protection.	503- Hearing Conservation Program	3
MCRD	MCCS Youth Center	Blood borne pathogen	Work practices, training & PPE	178- Blood and /or Body Fluids Exam 703- Child Care Worker Exam	18
MCRD	Food Court, Sand Trap, Log Cabin, Traditions, Lyceum, Java Cafe	Food handling	Work practices, training & PPE	709-Foodservice Personnel	61

NOTE: Explanation of Medical Surveillance/Certification Recommendations.

1. Recommendation for inclusion in a hazard-based medical surveillance program for employees involved in a given operation is based on the industrial hygienist's professional judgment, either through observation or knowledge of the process or representative sampling, that these employees will be routinely exposed to workplace concentrations at or above the Action Level which is 50% of applicable OSHA standards or action levels established by Navy instruction or Federal regulation. Medical certification is required by specific Navy or Federal directive where a certain degree of physical fitness has been judged as necessary for a component of the job (i.e. respirator use) or the job itself (i.e. firefighters or forklift operators).

2. Voluntary use of respirator requires the approval of the RPPM. When using filtering face pieces respirators (N95) for humanitarian reasons a complete program is not required, provided there is no risk anticipated. However, when worker chooses to wear a respirator other than the filtering face pieces even though the job activity warrants no respiratory protection or any OSHA Standards, then the complete administration of the program must be established.

3. The Occupational Health (Occ. Hlth.) Provider will make the final determination for enrolment in the Blood borne Pathogen Medical Surveillance Program for potentially exposed personnel using federal regulations and local instruction for exposure control plan as guidance.

4. The potential for reproductive hazards exposure should not be construed as an automatic removal from the job or billet. Consult with Occ. Hlth. Practitioner who will provide the medical decision appropriate for the working condition of the pregnant service women. OPNAVINST 6000.1C - Navy Guidelines Concerning Pregnancy and Parenthood provides the policy and procedures regarding management of pregnant servicewomen.

**SUMMARY OF RECENT SAMPLING RESULTS 2016
MCCS MCAS Beaufort and MCRD Parris Island SC**

Sample Number	Date	Bldg/Shop	Activity	Stressor	Measured Results	Exposure Criteria	Evaluation
Not Applicable (NA)	20MAR15	Bldg. 1219 MCCS Skills Center MCAS	Vehicle Maintenance	Carbon monoxide	253,199, 427,312, 220,188 (CFM)	100-200 CFM ACGIH VS Print VS-85-01	Acceptable
IH15-0489	01JUL15	Bldg. 203/ MCRD Bowling Center	Equipment Repair/Prev Maintenance	Noise	73.7 dB(A) TWA	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable
IH15-0532	22JUL15	Bldg. 203/ MCRD Bowling Center	Equipment Repair/Prev Maintenance	Noise	81.6 dB(A) TWA	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable
IH15-0559	08AUG15	Bldg. 790/ MCAS Bowling Center	Equipment Repair/Prev Maintenance	Noise	86.0 dB(A) TWA	TWA 85 dB(A) Ref: MCO 6260.3	Unacceptable
IH15-0560	08AUG15	Bldg. 790/ MCAS Bowling Center	Equipment Repair/Prev Maintenance	Noise	86.2 dB(A) TWA	TWA 85 dB(A) Ref: MCO 6260.3	Unacceptable
NA	10SEP15	Bldg. 1219 Recreation/ Boat Maintenance	Boat maintenance	Carbon monoxide	0.76 CFM/ft ² calculated	ASHRAE 62-2001 requires 1.5 CFM/ft ² of room area	Uncertain, the standard notes this parameter alone should not be used to evaluate indoor air quality for occupants
NA	10SEP15	Bldg. 405; MCCS MCRD Facility Maintenance Shop	Woodworking	Wood Dust	298 CFM	ACGIH VS-95-02 requires 100 CFM at guard or 545 ACFM at the base	Unacceptable
IH15-0669	18SEP15	Bldg. 790/ MCAS Bowling Center	Recreation Services	Noise	76.4 dB(A) TWA	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable
IH15-0670	18SEP15	Bldg. 790/ MCAS Bowling Center	Recreation Services	Noise	77.6 dB(A) TWA	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable
IH15-0671	18SEP15	Bldg. 790/ MCAS Bowling Center	Equipment Repair/Prev Maintenance	Noise	73.5 dB(A) TWA	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable
IH16-0048	10DEC15	Bldg. 203/ MCRD Bowling Center	Equipment Repair/Prev Maintenance of Pin Setting Machines	Noise	8-hr TWA = 79.6 dB(A)	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable

**SUMMARY OF RECENT SAMPLING RESULTS 2016
MCCS MCAS Beaufort and MCRD Parris Island SC**

Sample Number	Date	Bldg/Shop	Activity	Stressor	Measured Results	Exposure Criteria	Evaluation
IH16-0071	07JAN16	Bldg. 203/ MCRD Bowling Center	Equipment Repair/Prev Maintenance of Pin Setting Machines	Noise	8-hr Time- weighted average (TWA) = 82.5 dB(A)	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable
IH16-0080	16JAN16	Bldg. 790/ Bowling Center @ MCAS	Bowling Operations/Pi n Setting	Noise	8-hr TWA = 74.9 dB(A)	TWA 85 dB(A) Ref: MCO 6260.3	Acceptable
NA	02MAR16	Bldg. 1219 MCCS Skills Center MCAS	Vehicle Maintenance	Carbon monoxide	262,192,390 ,337,166, 205 cubic feet per minute calculated(CFM)	100-200 CFM ACGIH VS Print 85-01	Acceptable
NA	16MAR16	Bldg. 1052 MCAS MCCS MCRD Golf Course	Pest Control	Trichlor- fon	8 room air changes per hour (RACH) (cal- culated)	6 ACH MIL-HDBK 1191	Acceptable
NA	11JUL16	Bldg. 905 MCAS MCCS MCRD Auto Skill Center	Vehicle Maintenance	Carbon monoxide	292,271,287 ,313,317, 278,253 CFM (cal- culated)	100-200 CFM ACGIH VS Print 85-01	Acceptable
NA	12JUL16	Bldg. 405 MCAS MCCS MCRD Facility Maintenance Shop	Woodworking	Wood Dust	302 CFM (calcul- ated)	ACGIH VS-95-02 requires 100 CFM at guard or 545 ACFM at the base	Un- acceptable
NA	12JUL16	MCAS MCCS MCRD Fleet Maintenance Shop	Vehicle Maintenance	Carbon monoxide	2.9 CFM/FT2	ANSI/ASHRAE 62- 2001, Table 6-4 1.5 CFM/FT2	Uncertain, the standard notes this parameter alone should not be used to evaluate indoor air quality for occupants
NA	2016/07/12	MCAS MCSS Recreational Equipment	Boat Maintenance	Carbon monoxide	0.73 CFM/FT2	ANSI/ASHRAE 62- 2001, Table 6-4 1.5 CFM/FT2	Uncertain, the standard notes this parameter alone should not be used to evaluate indoor air quality for occupants

Glossary

Action Level - Usually one-half the PEL or TLV.

Acute - An illness with a sudden onset, or a short-term exposure.

Administrative Control - Limiting exposures by controlling the work schedule.

Ambient - Normal conditions outside a confined or enclosed space.

ANSI - American National Standards Institute, a standard developing group.

Audiogram - A graph or table showing hearing threshold levels by frequency.

Audiometer - Instrument used to measure a person's hearing threshold.

A-Weighted Sound Level - Measured sound level that reflects our ears reduced sensitivity to low frequency sounds. Expressed as dB(A).

Capture Velocity - The velocity of air necessary to capture a contaminant.

Ceiling Limit - An exposure to toxic materials that may never be exceeded.

Chronic - Persistent, prolonged, repeated.

Concentration - Quantity of a substance per unit volume. Examples include: mg/m³- milligrams per cubic meter. For vapors, gases, fumes, or dusts. ppm - parts per million (used for vapors and gases), fibers/cc - fibers per cubic centimeter (used for asbestos)

Confined Space - A space with restricted entry or exit and not designed for routine occupancy but large enough that a person can enter to perform work.

Cumulative Trauma Disorders (CTDs) - Health disorders arising from repeated biomechanical stress. CTD involve damage to the tendons, tendon sheaths, and related bones, muscles, and nerves of the hands, wrists, elbows, shoulders, neck, and back. Disorders include carpal tunnel syndrome, tennis elbow, tendonitis, tenosynovitis, and low back pain.

Decibel-dB - A unit used to express sound pressure levels.

Detector Tube - A glass tube filled with a chemical that produces a color change when contaminated air is drawn through the tube.

Dosimeter - A device for measuring a cumulative exposure to an individual.

Dust - Small particles created during crushing, grinding, or explosion.

Ergonomics - Field concerned with workplace design to reduce fatigue, error, unsafe acts or injuries such as CTD's.

ESAMS- Enterprise Safety Application Management System

Excursion Limit - Temporary exposure in excess of a PEL or TLV.

Frequency - Vibration or cycles per second, usually referred to as Hertz (Hz).

Fumes - Small particles (< 1.0 micron in diameter) formed when a vaporized metal solidifies. The vapor often reacts with oxygen to form an oxide.

Gas - Diffuse, formless fluid normally in a gaseous state.

Hazardous Material - A material meeting one or more of the following: (a) flashpoint <200°F, (b) TLV < 1000 ppm for gases and vapors or < 500 mg/m³ for fumes, (c) a single oral dose which will cause 50 percent fatalities to test animals in doses <500 mg per kilogram of test animal weight, (d) strong oxidizing or reducing agent, (e) causes first degree burns to skin or toxic by skin contact, (f) may produce particulates, vapors or gases with one or more of the above characteristics, (g) sensitizing or irritating effects, (h) radioactive, or (i) special characteristics which could cause harm if improperly used or stored.

Hazardous Material Information System (HMIS) - A computer database of MSDS for hazardous materials used throughout the DOD.

High-Efficiency Particulate Air Filter (HEPA) - A filter capable of trapping and retaining at least 99.97 percent of 0.3 micrometer diameter particles.

Immediately Dangerous to Life or Health (IDLH) - Atmosphere immediately hazardous to life or producing immediate irreversible harmful health effects.

Imminent Danger - A condition that may immediately cause the loss of life, serious injury, or illness of an employee.

Impulse or Impact Noise - Sound of short duration, usually < one second.

Material Safety Data Sheet (MSDS) - Used by manufacturers to communicate hazardous properties of products. Includes: name; address; emergency contact;

hazardous ingredients; physical, chemical, fire, explosion, reactivity, and health hazard data; safe handling, use, and control precautions.

Medical Surveillance - Medical evaluation of the health of workers exposed to chemical, physical or biological agents in the workplace.

NAVOSH - Navy Occupational Safety and Health. Navy safety and health standards are referred to as NAVOSH standards and are \geq OSHA standards.

NIOSH - National Institute for Occupational Safety and Health.

NIOSH/MSHA Certified Equipment - Safety equipment that has been tested by NIOSH or MSHA and meets minimum requirements for hazard protection.

Occupational Health - Field of medicine involving prevention and treatment of illness in the workplace. Includes: occupational medicine, occupational health nursing, toxicology, audiology, and industrial hygiene.

OSHA - Occupational Safety and Health Administration.

Oxygen Deficient Atmosphere - An atmosphere with an oxygen concentration below 19.5 percent. The normal oxygen level is 21.5%.

PEL - Permissible Exposure Limit. The maximum concentration of a chemical or physical agent (usually an 8-hour average) allowed by OSHA.

Radiofrequency Radiation (RFR) - Electromagnetic radiation from 10 kHz to 300 GHz.

Smoke - Carbon or soot particles less than 0.1 micrometer in size.

Solvent - A substance used to dissolve another substance.

TLV - Threshold Limit Value - Exposure limits established by ACGIH.

Toxic Substance or Harmful Physical Agent - Chemical, biological, or physical agents which are regulated by NAVOSH or Federal standards.

TWA - Time-Weighted Average. Average concentration of airborne material over a standard time period, usually 8 hours.

Vapor - Gaseous form of materials normally in the solid or liquid state.

Industrial Hygiene Customer Satisfaction Survey

In order to improve our Services, Industrial Hygiene would like to have feedback from all of our valued customers. Please return this questionnaire to the Industrial Hygiene Division via Guardmail or provide the IH service feedback @

http://ice.disa.mil/index.cfm?fa=card&sp=124393&s=350&dep=*DoD&sc=11

Naval Hospital Beaufort
Industrial Hygiene Code 5JIH
1 Pinckney Blvd
Beaufort SC 29902-6148

Survey/Date: **MCCS MCAS BEAUFORT and MCCS MCRD 2-15 AUGUST, 23 SEPTEMBER 2016**

Department: _____ Position: _____

Name: _____ Phone: _____

Industrial Hygienist (IH): (Please use the comment block below to list comments or concerns)	Yes	No	NA
Did the IH conduct their service in a professional manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the IH responsive and helpful during the survey walk-through and with any related follow-up questions/concerns?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the IH knowledgeable about the potential health hazards associated with this work area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Industrial Hygiene Survey Report/Correspondence: (Please use the comment block below to list comments or concerns)	Yes	No	NA
Was the information in the executive summary appropriate for senior leadership?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the report clear, concise and easy to understand?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the report layout and format easy to use and disseminate throughout your work centers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were any personnel omitted from medical surveillance programs that you think should be enrolled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were all work processes/concerns addressed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were specific safety and health programs such as lead, hearing conservation, and reproductive hazards reviewed as appropriate for various work activities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Please comment on what you thought were the best aspects of our services:

Please comment on how we may improve the services we provided to you: